ILLINOIS MEDICAL JOURNAL

THE OFFICIAL ORGAN OF

THE ILLINOIS STATE MEDICAL SOCIETY

VOL. LVIII. OAK PARK, ILL., NOVEMBER, 1930 No. 5

ILLINOIS MEDICAL JOURNAL

Published monthly by the Illinois State Medical Society under the direction of the Publication Committee of the Council.

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Membership correspondence to Dr. Harold M. Camp, Monmouth, Ill.

Society proceedings and news items and changes in the mailing list to Dr. Henry G. Ohls, Managing Editor, 1618 Juneway Terrace, Chicago.

Contributors will submit all copy for publication typewritten on standard size paper and double spaced. Copy not complying with this rule will be returned, if convenient.

Subscription price of this Journal to persons not members of the Illinois State Medical Society is $3.00 per year, in advance, postage prepaid, for the United States, Cuba, Porto Rico, Philippine Islands, Hawaiian Islands and Mexico. $3.50 per year for all foreign countries included in the postal union. Canada, $3.25. Single current copies, 50 cents.

Editorials

LIKE BANQUO'S GHOST THE CHICAGO PUBLIC HEALTH INSTITUTE WILL NOT DOWN.

THE PUBLIC HEALTH INSTITUTE CONTROVERSY WITH ETHICAL MEDICINE WILL NOT BE SETTLED UNTIL IT IS SETTLED RIGHT.

The Chicago Public Health Institute's troubles with ethical medicine increase in direct ratio with its offenses. Like Banquo's ghost, this one, too, can not be laid until it too is "purged of all its foul crimes and dire iniquities done in its days of nature."

With as much vehemence as a brass band run by a blacksmith "Chicago's Public Health Institute" manages to keep itself in the public ear. It is not a local but a national issue. Anybody knows that such a brass band can penetrate longer and louder and farther than the most exquisite symphony played with the greatest artistry on the finest Stradivarius.

Brass, unfortunately does not mean class. Nor does it signify that because it is heard it is adored. Troubles of such a brass band never end. They would if the band first would disband and then would practice the praiseworthy virtue of silence. But like Banquo's ghost such persistence, noisy organization continues to walk the earth treading on the sonant heels of harmony and giving the equilibrium of euphony a deliberate sock on the nose.

The public at large and the profession in particular is about to be regaled with other wails from the Public Health Institute, which can never be stilled until such time as it is purged of all its "foul crimes and dire iniquities."

The next immediate wail of the Public Health Institute arises from the sending to it of the following communications reprinted in full from

the bulletin of the Chicago Medical Society under date of August 30, September 2, September 3, September 10, September 20 and September 27, 1930:

THE PUBLIC HEALTH INSTITUTE

The following letter was sent under date of July 22, 1930, to Drs. E. E. Irons, L. Hektoen, J. A. Capps, A. D. Black, W. W. Hamburger, C. A. Elliott and J. W. Miller, member of the Advisory Board of the Public Health Institute.

Dear Doctor:

Nearly a year has elapsed since the so-called reorganization of the Public Health Institute and so far as can be learned there is no radical change in the conduct of the Institution.

Apparently the Medical Director continues to carry on his usual policy of delay, tergiversation and possibly an outward assurance of co-operation which finds no stay or maintenance in works.

According to our information the rules of the house which have required the selling of examinations, heart, lungs, etc., where they are unnecessary are as yet unaltered.

It is reported too that unlicensed physicians and even "the porter" are engaged in medical practice and are giving treatments at the Institute.

There are no signs of effort to divide up the work of the establishment into Departments as the plan of reorganization professed to do, and the Medical Director to all appearances, is using the Medical Advisory Board for stool pigeons as he boasted he would, and just as he has for years used the lay Board of Trustees.

In the Chicago Tribune advertisement for Sunday, July 20, the impression is conveyed that the work of the Public Health Institute is wholly endorsed by the medical profession, through its representation in the Medical Advisory Board.

You know, and we know, that such endorsement is not according to facts, and that such official and professional encouragement gives the public a far more erroneous opinion of the kind of work done at the Institute than any reader could obtain from the associated publication of the names of the lay Board of Trustees.

To the Public Relations Committee of the Chicago Medical Society it seems desirable, therefore, that you should make your position plain to those in charge of the Institute, and either bring about a recognizable alteration in the conduct of affairs or, for your own sakes, to refuse to allow your names, reputation, and standing as physicians to be further imperiled by the Association.

This letter is sent to each member of the Advisory Board in duplicate because we have no information as to who constitute the officers of your Board. It is unthinkable of course that a body of high-minded medical gentlemen would permit themselves to be organized and ruled by laymen, like the staff of the Institution to which you are lending your personal honor and professional eminence.

With assurances of personal esteem, I am

Yours very truly,

(Signed) CHARLES B. REED,
Public Relations Committee,
Chicago Medical Society.

It can plainly be seen that this organization's "days of nature" continue to be jammed full of trials and woe.

Whenever the Public Health Institute wants to throw a stone it does so in the name of a member who was expelled from the Chicago Medical society because of his connection with the unethical Public Health Institute.

An editorial printed Sept. 2, 1930, in the *Chicago Tribune* shows how biased are the champions of the Public Health Institute and upon what an improper perspective their findings are focused.

DR. SCHMIDT AND DR. HARRIS

It appears now that Dr. Malcolm L. Harris is not to be disciplined for unethical conduct by the Chicago Medical society.

Dr. Harris is one of Chicago's most distinguished surgeons. Last year he was president of the American Medical association. He has also served as president of the Chicago Medical society. Nevertheless, Dr. Harris was obliged to defend himself against the charge of improper professional conduct. It is a good deal as if Mr. Hughes, Mr. Wickersham, or Mr. Strawn were to be cited for unprofessional conduct by the bar association. No one can accuse the Chicago Medical society of being a respecter of persons. It threw Dr. Louis Schmidt out of its fellowship, though he was one of its most distinguished members, and it began proceedings against Dr. Harris.

The attempt to distinguish the case of Dr. Schmidt from the case of Dr. Harris is not easy. Both clinics were headed by physicians of high standing. Neither was operated for profit. Both employed advertising. Both aimed to give superior service at low cost. Both have undertaken to modify their advertising to accord with the views of the medical society. The chief difference appears to be that the Public Health Institute employed newspaper advertising, which is highly effective, while the Policlinic issued a circular, which is far less so. The conclusion seems warranted that physicians may associate themselves with clinics which advertise services at reduced costs provided the advertising is not effective.

This is a good deal as if a doctor should instruct his patient to eat freely of everything except food, but we are not disposed to be hypercritical of the medical society. It is a large body and it must move slowly. It is engaged, whether it knows it or not, in the difficult task of rewriting the code of medical ethics, so-called. It seems to have recognized the absurdity of

retaining in the code prohibitions which its most eminent members do not observe. It has already gone so far as to admit that some forms of medical advertising are acceptable. It is beginning to grasp the fact that the family of moderate means constitutes the bulk of the population in this country and that meeting the requirements of this section of society is therefore of first importance. These are considerable advances and are to be commended, provided, as seems altogether probable, they are intermediate and not final. Meanwhile the society which threw Dr. Schmidt out has now virtually accepted his position, but has not taken steps to reinstate him. That is an inconsistency which, as time goes on, must cause the society considerably more pain than it does Dr. Schmidt.

It must be confessed that Dr. Reed would seem to be in line for sincere congratulations on account of his masterly letter written in reply to the *Chicago Tribune,* published in the *Bulletin* of the Chicago Medical Society under date of Sept. 13, 1930, and reprinted herewith:

OPEN LETTER TO THE CHICAGO DAILY TRIBUNE

The following letter was sent under date of September 3 to the Editor of the Chicago Daily Tribune, in reply to the Editorial which appeared in the Tribune September 2, 1930.

Editor, Chicago Daily Tribune,
Chicago, Illinois.

Dear Sir: It seems necessary to inform you, since you make the contrary assertion in your editorial of September 2, that the Chicago Medical Society still retains in its Code of Ethics the various prohibitions which certain commercially minded members of that society have felt could be safely violated. In fact a mind that is oriented for commercial success does not and can not have an adequate understanding of the professional attitude.

If the profession of medicine is to retain the respect of the community; if it is to be trusted by the public as well as by the patient, each and all of its members must realize that a breach of faith is malfeasance, no matter who commits it and neither great wealth nor professional eminence will protect the malefactor who conveniently forgets his professional obligations. The Tribune very correctly emphasizes this point and quotes fitting examples. Technical proficiency is not always associated with group loyalty or moral uprightness.

The profession of medicine has such a value to the community that a wise policy underlies the restriction of such practice to those especially qualified to uphold its standards. In carrying out the principle of personal and direct responsibility of doctor to patient a wholesome result is achieved for all classes of society and particularly for the people of moderate means, to which class the entire medical profession, with a few wolfish exceptions, belongs.

"Every man of great wealth," says Roosevelt, "who runs his business with cynical contempt for those prohibitions of the law which by hired cunning he can escape or evade is a menace to our country"—and, it may be added, a reproach to the profession which he betrays.

Mr. Wickersham, Mr. Hughes and Mr. Strawn, to whom you refer, would find the same condition and meet with the same fate in the Bar Association if their financial success had given them more egotism or less mental poise. In such cases both the Bar Association and the Medical Society are happily able, if necessary, to slough off putrid material and thank God for their physical immunity to toxic matter.

It may be well for the Tribune to understand here and now that the expulsion of members of the Chicago Medical Society is not a transient, but a permanent dissolution of fellowship which is decreed only after the best interests of the medical profession and the public have been carefully considered. In most cases these interests are found to be identical.

As regards the advertising, every class of society except Mass Production Magnates, admits that a professional card is all that is required for any one who has a thought for honor and reputation rather than for great wealth impatiently acquired. Emerson's story of the mouse trap is still valid. The story is equally applicable to corporations which are illegally employed in the practice of medicine. Mass Production Magnates who run these institutions cannot operate them except along commercial lines. The South Sea Islander hollows out his canoe by fire because he knows nothing better, but for the Tribune to maintain that an institution which professes to cater to "people of moderate means" is operated on a "not for profit" basis when it can offer a man forty thousand dollars a year out of its profits to come to Chicago and manage it, is the height of something or other—ignorance or nonsense.

The profession of medicine has to battle with one of the strongest influences in American democracy, the tendency to emphasize wealth as the center of power, and advertising as the means to this achievement. In medicine, if one *may* advertise all *should* advertise, and in the confusion and chaos thus produced our sick and afflicted will be lured into the ministrations of the man or institution with the largest purse regardless of ability or competence. Soliciting, however desirable it may be from a commercial standpoint where "profits first" is the slogan, leads in the practice of medicine to the dissolution of moral bonds and the disintegration of all that is highest and finest in human nature.

Sin in other forms is just as malignant and much more prevalent today than venereal diseases, as the Tribune's columns daily portray, and yet the religious profession does not advertise that such and such a church or synagogue will heal the distressed soul and relieve it of the sense of sin for a moderate price any Sunday morning at ten. No religious nor, indeed, any other form of honest advertising needs to call attention to more than its location, its time and its offering. High powered salesmen are unnecessary. The sinner who needs help will easily find his way to salvation

under the general invitation "Come all ye that labor and are heavy laden."

Very truly yours,

CHARLES B. REED.

The following letter was sent under date of September 10, 1930, to Drs. E. E. Irons, L. Hektoen, J. A. Capps, A. D. Black, W. W. Hamburger, C. A. Elliott and J. L. Miller, members of the Advisory Board of the Public Health Institute.

Dear Doctor:

The purpose of the Public Relations Committee of the Chicago Medical Society is to preserve and keep clean in the interest of the community, the principles of a profession whose existence is primarily for the benefit of the community. As we are witnesses of unprofessional practices and know the evil consequences, so our responsibility increases and the community calls upon us for initiative, for guardianship and zeal.

Our letter of July 24 directed your attention to the increasing restlessness and resentment of the medical profession arising from your continued association with the Public Health Institute.

In your laudable ambition to purge and purify an unethical institution, you accepted an unfortunate position; a position which exposes you to constant censure and condemnation by fellow members of the Society through your willingness to lend your honorable names to the questionable reformation of an institution whose very existence is injurious to the public, to the profession of medicine and to yourselves.

You, gentlemen, are responsible to the profession of Chicago and of the whole United States for the fulfillment of the task you undertook or a frank abandonment of the attempt. Nearly a year has elapsed since you assumed this obligation and up to this time the Chicago Medical Society which agreed to the proposal with reluctance and mistrust, has had no report from you either as individuals or as a committee on the accomplishments achieved or the ends hoped for. In the absence of information it is impossible to know whether this silence is due to inactivity in the affair, to indifference to professional opinion, or to an unconsciousness of the dangers in the situation.

Whatever the reason, it is necessary now to inform you that the Annual Meeting of the Council occurs early in the month of October, and therefore it is the duty of this Committee to ask you to make a report to the Society on or before October 1, 1930.

With assurance of personal esteem, I am

Very truly yours,

IRVING S. CUTTER,
Chairman Public Relations Committee,
Chicago Medical Society.

THE PUBLIC HEALTH INSTITUTE

The following letter was sent under date September 24, 1930, to Drs. E. E. Irons, L. Hektoen, J. A. Capps, A. D. Black. W. W. Hamburger, C. A. Elliott and J. L. Miller, members of the Advisory Board of the Public Health Institute.

Dear Doctor:

In reply to my letter of September ninth, the Committee has received from Mr. Michael Davis of the Rosenwald Fund a letter under date of September 19, copy of which is enclosed. Mr. Davis signs himself acting Chairman of the Medical Advisory Committee of the Public Health Institute.

Is it your desire that the above communication be received by the Council of the Chicago Medical Society in lieu of the report requested in the letter sent you under date of September ninth?

Yours very truly,

IRVING S. CUTTER,
Chairman, Public Relations Committee,
Chicago Medical Society.

September 19, 1930.

Dear Doctor Cutter:

I am directed by the Medical Advisory Board of the Public Health Institute to acknowledge the receipt of your letter of September 9.

The Board desires that attention be called to our letter of April 28, 1930, written in response to one from you as Chairman of the Public Relations Committee of the Chicago Medical Society, asking how long a time might be required to put into operation the recommendations adopted for the improvement of the Institute. Your letter was printed in the Society BULLETIN of April 12 (p. 23) and our reply in the BULLETIN of May 10 (p. 24). Our letter stated that:

"The recommendations which the Medical Advisory Board based upon the reports of the three visiting physicians and which as your letter states, have been approved by the Trustees of the Public Health Institute will take a considerable time to work out in practice. Securing the clinic chiefs, for instance, indicated in recommendation No. 1 may take a number of months. Action upon several other recommendations should follow, and not precede, the installation of these men. The policy under which the advertising is to be conducted was defined in the statement which was printed some weeks ago. Working this policy into the advertisements will proceed step by step as concrete suggestions are developed.

"In general, it is the sentiment of the Medical Advisory Board that a year from now is not too short a period for the careful tentative development of the recommendations and plans thus far adopted."

It will be recalled that the policy and recommendations of the Board together with the reports and conclusions of Drs. Cole, Keyes and Parran, were published in full last spring previous to the above-mentioned correspondence. Since that correspondence, plans have been completed whereby the advertisements of the Institute are regularly submitted to the Board and they are now published if and as approved, and contain a printed statement of this approval. It is hoped that study and criticism will still further improve the advertising in educational quality and in effectiveness.

Negotiations are now in process with possible candidates for clinic chiefs. The Board instructs me to state that it has seen no reason to change its opinion as to the time needed for carrying out the recommendations and that it will move forward in this important and necessary task in the belief that progress is being made as rapidly as conditions permit.

Very truly yours,

MICHAEL M. DAVIS,
Acting Chairman,
Medical Advisory Board of the Public Health Institute.

From many sources, both local and national, we have received numerous inquiries by telephone, by mail and verbally asking the status of the Public Health Institute at Chicago in its relation to the Chicago Medical Society and to the local medical profession.

The argument is set forth at length because this problem of Chicago's Public Health Institute is not one of merely local importance. It is a problem which affects nationally the medical profession in that it is not only a lay corporation practicing medicine but also that some of its methods of practice are definitely open to question. Furthermore it has far exceeded both the canons of good taste and the accuracy of its knowledge by daring to enter into the pros and cons of so purely and personally a professional matter as the disciplining of a member when the disciplinary unit contends, asserts and upholds that the discipline—as extended—was from a purely scientific standpoint, on a purely scientific error and for purely scientific reasons and in a realm where scientists alone are concerned and are competent to sit in judgment. It is beyond credence and would be beyond tolerance if a board of physicians insisted upon reversing the opinions of the U. S. Supreme Court—of a labor union or of a commercial association. It would seem also that for the Public Health Institute and its commercial backers the point of dignity, wisdom and probity might be found in a policy of silence and a doctrine of noninterference.

THE TRUTH NEEDS NEVER FEAR LIGHT ON ALL SIDES OF A QUESTION

Because of the praise given a most obnoxious, pretentious and unscientific corporation practicing medicine by one of the country's kindest hearted, wealthiest and well intentioned but in some respects sadly misinformed but highly respected American citizen, the ILLINOIS MEDICAL JOURNAL reprints the open letter to Julius Rosenwald that appeared in the *Bulletin* of the Chicago Medical Society under date of Nov. 1, 1930.

OPEN LETTER TO MR. ROSENWALD

(October 28, 1930)

At a meeting of the American Hospital Association held in New Orleans, Mr. Julius Rosenwald of Chicago was quoted by the *Chicago Tribune* of October 21, 1930, as saying:

"The receipts from pay patients for all the services of the hospital and clinics amounted last year to more than $500,000. If this had been given on a charity basis it would have required the income on a ten million dollar endowment. Therefore it seems to me that universities and hospitals have no right to attempt to raise huge endowments for service which can—and should—be paid for by the recipient."

At this point the quotation of Mr. Rosenwald's speech ceases and the reporter takes up the story:

"As another illustration that good medical care can be given to great numbers at low fees, Mr. Rosenwald told of the Public Health Institute of Chicago. This pay clinic for social disease has given more than three million treatments to 150,000 different patients at a cost of $1.50 per treatment, he said. He added that out of this comparatively small fee the institute has more than covered its expenses and accumulated a surplus, used to promote research and to furnish free treatment to a limited number of patients unable to pay even small fees."

If these figures are correct it works out that the average cost per patient is $30.00.

Mr. Rosenwald is then directly quoted:

"There still is serious opposition to these organized self-supporting services from certain elements of the medical profession who seem to fear competition."

If Mr. Rosenwald has been correctly quoted he can only be understood as indicting "certain elements of the medical profession" for the high cost of hospital care. If that is his intention he has been guilty of what might be called in the language of diplomacy, a deliberate mis-statement. If it is not his intention then he has been guilty of a serious error in logic. In the first place Mr. Rosenwald must be well aware that the medical profession is not responsible in the slightest degree for the executive management of any of the larger Chicago hospitals. The charges for hospital care are determined, not by the doctors, but by the business men who constitute the Board of Trustees. If the charges are unfair or if they are the result of inefficient management, and these are points which need no discussion here, then the fault is not the doctor's. The blame, if any, should be placed on those who manage the institutions. Mr. Rosenwald cannot name a single

large hospital in which the medical staff is allowed any voice in the management. It is not true of Michael Reese, St. Luke's Presbyterian, Wesley, or Mercy. In all of these hospitals the medical staff is responsible only for professional care. The doctors have no more to say about the charges for room rent, x-ray fees, laboratory fees, charges for drugs, anesthetics, dressings, and other extras than Mr. Rosenwald.

In an editorial in the *Daily News* of October 22, 1930, the editor referring to Mr. Rosenwald's speech remarks, "Medicine is a noble profession, scientific in its nature. Its economic side, as progressive physicians recognize, is undergoing radical readjustment. Consequently it needs the guidance of business experts, of organizers, co-ordinators and planners." Here again it is obvious that the editor confuses the profession of medicine with the business of hospital administration.

In this connection it may not be amiss to report that these various large Chicago hospitals are losing from $50,000 to $500,000 yearly through this same management by business men which Mr. Rosenwald and the *Daily News* wishes to impose upon the medical profession. Possibly the *News* means to suggest here that the medical profession could be organized more successfully by the business experts whose incapacity has been so obvious this year in their own line. A hospital is a hotel for sick people run by business men in which doctors have to place their patients but in which they have no more to say about room charges, etc., than if they were treating that same patient in the Stevens Hotel. Let Mr. Rosenwald direct his criticism toward his business associates whose names appear on the rosters of the various Boards of Trustees. If he can suggest a way by which they can cut the cost, furnish the same kind of service as formerly and avoid a deficit at the end of the year, they will be glad to learn of it. Certainly the members of the medical profession will welcome the change. At the present time it not infrequently happens that physicians furnish professional care entirely free to patients paying from $1.00 to $5.00 per diem to the hospital. The amount of time and thought donated to the public by members of the medical staff of the County Hospital alone would in a single year far exceed Mr. Rosenwald's entire fortune. We have nothing to gain as individuals or as a profession by seeing the costs of hospital care kept above a level which the average citizen can afford. To imply that physicians are less interested in the public welfare than Mr. Rosenwald is both unfair and untrue.

Mr. Rosenwald is not only unfair but he is inconsistent. He states that "universities and hospitals have no right to attempt to raise huge endowments" and that the receipts of the University of Chicago clinics last year exceeded $500,000. He failed to state, however, that during the first year of operation the deficit of the clinic referred to exceeded $300,000 and that during the second year it amounted to $150,000 and that these deficits were erased by the Rockefeller Foundation aided by other organizations which may have included the Rosenwald Foundation. In what way does this differ from having an endowment fund? Mr. Rosenwald uses the Public Health Institute to illustrate how hospital costs may be reduced. This is superficial and hardly justifies a reply were it not for the fact that Mr. Rosenwald and hundreds of other sincere men hold similar views. The Public Health Institute occupies a few rooms where treatment is given to ambulatory patients suffering from social diseases. It does not furnish meals and consequently does not need kitchens, refrigerator space, store rooms, dumb waiters, dietitians, cooks, or waitresses. It does not furnish sleeping accommodations and consequently does not require private rooms, bedding, janitor service, laundry, bathing facilities, a corps of engineers and firemen to maintain heat, and painters, plumbers, electricians, carpenters and housekeepers to keep the rooms in order. It does not care for contagious diseases, pneumonia, broken bones or maternity cases. It does not conduct a school for the training of nurses which necessitates dining rooms, sleeping accommdations, laundry, food and recreation as well as instruction. The Public Health Institute will not even take care of all the illnesses due to syphilis and gonorrhoea. It takes care only of those patients who are able to walk into the clinic and pay a fee. The syphilitic who is helpless from locomotor ataxia and the syphilitic who is insane from general paralysis and unable to get about must still be cared for by the physician in the home or in the general hospital, and he must be cared for whether he has or has not money.

Physicians have no quarrel with the Public Health Institute on the basis of the fees which they charge and they never have had, notwithstanding the smoke-screen which Dr. Louis E. Schmidt attempted to raise. Incidentally there is unimpeachable testimony that Dr. Schmidt condemned the Public Health Institute lock, stock and barrel one year prior to the time he became its valiant defender. No, the quarrel with the Public Health Institute has nothing to do with fees nor the fear of competition. It is based entirely on the fact that the Public Health Institute resorts to direct advertising, a thing which no honest and reputable hospital or physician will do either from ethics or necessity. Possibly the aversion of the medical profession to advertising is wrong but that is not the subject under discussion. Any man who distorts the basis of our quarrel with the Public Health Institute by leading the public to believe that the medical profession is opposed to measures which will advance the public welfare is a malicious mischief maker. Physicians believe that they have just as keen an interest in the public welfare as the average layman be he wealthy or poor. They believe that direct advertising is inimical to the best interests of the public. They are fully aware that we are living in an era which calls for a revaluation of human relations. They observe these adjustments going on all around us, and they do not expect to continue living under an outworn code. No one knows that adjustments may be necessary but the doctors are surprised to find so many people with a minimum of practical personal experience who know exactly

what should be done. That millions of earnest men including able statesmen in all nations desired to stop the World War did not deter Henry Ford from offering his personal services. Medicine and hospital administration are not the only fields in which readjustments are taking place. Chaos rages in the educational field. In political economy various schemes from the individual dictatorship of Mussolini to the mass dictatorship of communism are being tried. In the religious field it is difficult to find any indications that there is unanimity of opinion as to the proper way to worship the Creator. Do the sociologists, criminologists, or lawyers know how to make America a law-abiding country? Even among the leaders of business there are wide differences of opinion in regard to the causes of the present business slump and the remedies which should be invoked. Many of these problems can be solved by frank and fair discussion. The medical profession does not reject the interest of Mr. Rosenwald and other wealthy men. They invite their help in arriving at a correct solution of medico-economic problems by means of frank discussion. The doctors believe that neither Mr. Rosenwald nor any other man knows the exact remedy which should be prescribed. If Mr. Rosenwald would meet a few men who are as distinguished in medicine as he is in business for informal discussion of these problems a basis of understanding if not for co-operation might be devised.

(Signed) W. H. Holmes, M. D.

This letter was inspired by remarks made by Mr. Rosenwald on different occasions among which must be cited the convention, of the American Hospital Association held in New Orleans during October, 1930, and at one of the sessions of whch Mr. Rosenwald was a prominent speaker.

Under date of October 21, 1930, The *New Orleans States* quotes him as follows:

Julius Rosenwald, noted philanthropist of Chicago, sounded the keynote of the convention Monday night in an address in which he urged provision of efficient medical service at fees within the reach of the average man. Mr. Rosenwald declared that establishment of such service was a fact and not a theory and pointed out the success of such a plan as established at the University of Chicago clinic in connection with its teaching hospital.

Mr. Rosenwald declared that the "self respecting" American does not want charity but "expects what he buys—as well as any service he receives, shall be furnished as efficiently as possible and at such prices that he may be able to pay for what he gets.

"Therefore hospitals and clinics at the present time should decrease their free work and greatly enlarge their pay work, thus adding substantially to their current incomes and offering services more in keeping with the American ideals and much more acceptable to the majority of American citizens.

"There is still serious opposition to these organized self-supporting services from certain elements of the medical profession who seem to fear competition," he said. "They overlook the fact that the best possible asset to the profession is the realization by great numbers of people of the benefits of medical care . . . that as more people get into the habit of using medical service, there will be increased opportunities for all physicians."

Newspapers all over the country gave much space and prominence to Mr. Rosenwald's talks as his ideas are quite in line with the attacks on the medical profession that are finding such favor at present with a large proportion of the laity.

In the news columns of the *Chicago Tribune* on October 21, 1930, appeared this report of Mr. Rosenwald's New Orleans speech:

ASKS HOSPITALS TO USE MODERN BUSINESS IDEAS

Rosenwald Urges Service at Moderate Prices

"Julius Rosenwald of Chicago urged tonight the establishment of more moderate pay clinics and hospitals to provide efficient service at fees within reach of the average man.

"Mr. Rosenwald addressed the convention of the American Hospital association. He pointed out that with more than three billion dollars invested American hospitals have entered the class of big business. He then told of the success of institutions running with a schedule of charges and professional fees within reach of persons of limited salary.

"As an example he cited the moderate priced pay clinics of the University of Chicago in connection with its teaching hospital. During the year 1929-30 that hospital ran 82 per cent full and the pay clinics increased from a trifle more than 100 patients a day during its opening year, three years ago, to almost 300 a day at present, he said.

"The receipts from pay patients for all the services of the hospital and clinics amounted last year to more than $500,000," he said. "If this had been given on a charity basis it would have required the income on a ten million dollar endowment. Therefore it seems to me that universities and hospitals have no right to attempt to raise huge endowments for service which can—and should—be paid for by the recipient."

As another illustration that good medical care can be given to great numbers at low fees, Mr. Rosenwald told of the Public Health Institute of Chicago. This pay clinic for social disease has given more than three million treatments to 150,000 different patients at a cost of $1.50 per treatment, he said. He added that out of this comparatively small fee the institute has more than covered its expenses and accumulated a surplus, used to promote research and to furnish free treatment to a limited number of patients unable to pay even small fees.

"There still is serious opposition to these organized self-supporting services from certain elements of the medical profession who seem to fear competition," Mr. Rosenwald said. "They overlook the fact that the best possible asset to the profession is the realization by great numbers of people of the benefits of medical care—that as more and more people get into the habit of using medical service there will be increased opportunities for all physicians."

Quoting statistics to show the rapid increase in the nation's hospital facilities, Mr. Rosenwald gave a tribute to the public spirit and open handedness of the American people in recognizing hospitals as a public responsibility. Of the three billion dollars invested in hospitals, 90 per cent or more has been contributed either by private gifts or from public funds, he said.

Mr. Rosenwald concluded with the contention that the "self-respecting" American does not want charity, but "expects what he buys—as well as any service he receives—shall be furnished as efficiently as possible and at such prices that he may be able to pay for what he gets."

He declared hospitals and clinics at the present time should decrease their fee, greatly enlarge their pay work, and thus add substantially to their current incomes.

The *Chicago Daily News,* under date of Oct. 21, 1930, not only reported Mr. Rosenwald's speech in its news columns as reprinted herewith but published also the editorial "Business Sense an Aid to Medicine," that is reprinted also:

PAY CLINICS NEEDED IN U. S.: ROSENWALD

Julius Rosenwald, Chicago philanthropist, last night told the members of the American Hospital Association. gathered for their convention here, that hospitals are now in the big business class, with more than $3,000,000,000 invested in them in America.

Mr. Rosenwald also told them a number of other things in his topic, "Hospitals from a Business Man's Point of View." One was the need for more moderate pay clinics and hospitals, and the success these can attain when properly conducted.

He pointed out the success of institutions running with a schedule of charges and professional fees within the reach of the person on a limited salary, and yet sufficient to cover the costs of hospital maintenance and to provide reasonable remuneration to the physicians.

Among the examples he quoted was the establishment of moderate-priced pay clinics by the University of Chicago in connection with its teaching hospital. During the year 1929-30 the hospital ran 82 per cent full and the pay clinics increased from a trifle more than 100 patients a day during its opening year, three years ago, to almost 300 a day at present.

The receipts from pay patients for all the services of the hospital and clinics amounted last year to more than $500,000. If this had been given on a charity basis it would have required the income on a $10,000,000 endowment.

Another conspicuous illustration that good medical care can be given to great numbers at low fees is the Public Health Institute of Chicago, asserted Mr. Rosenwald. This pay clinic has given over 3,000,000 treatments to 150,000 different patients at a cost of $1.50 per treatment, he said, adding that out of this comparatively small fee the institute has more than covered its expenses and accumulated a surplus which is used to promote research and to furnish free treatment to a limited number of charity patients.

"There still is serious opposition to these organized self-supporting services from certain elements of the medical profession who seem to fear competition. They overlook the fact that the best possible asset to the profession is the realization by great numbers of people of the benefits of medical care—that as more and more people get into the habit of using medical service there will be increased opportunities for all physicians," Mr. Rosenwald said.

The following is the *Daily News* editorial:

BUSINESS SENSE AN AID TO MEDICINE

Addressing the American Hospital Association in convention at New Orleans, Julius Rosenwald emphasized the need for the application of sound business principles to the operation of clinics, hospitals and health institutes. Directing attention to certain self-supporting institutions in Chicago which serve the public efficiently, treating thousands of patients each week and charging very moderate fees, he urged that similar benefits be provided in other communities in the interest of public health.

There are some members of the medical profession who resolutely oppose all self-supporting health agencies that charge lower fees than those charged by physicians in their regular practice. Mr. Rosenwald reminded his hearer that the greatest possible asset to all who follow the art of healing is realization by the general public of the benefits of prompt medical care and periodic health examinations. Millions of persons habitually neglect their health even though symptoms of disease unpleasantly warn them of danger. Many act thus unwisely because of the high, often prohibitive, costs of medical attention and care, drugs, nursing, and hospitalization. In many families where sickness is a calamity sickness is not faced on its approach until further delay becomes impossible.

Medicine is a noble profession, scientific in its nature. Its economic side, as progressive physicians recognize, is undergoing radical readjustment. Consequently it needs the guidance of business experts, of organizers, co-ordinators and planners. Under modern conditions philanthropy alone will not solve the grave problems of public health. Co-operation, group medicine, business methods, large-scale operations are essential and inevitable.

HARPER'S MAGAZINE TELLS THE DOCTORS HOW TO PRACTICE MEDICINE

Another Group Tells the Doctors How to Practice Medicine

Doctors, did you know that the "Public's Resentment Challenges Physicians?"

If not buy Harper's Magazine for November and secure another load of advice as to how to practice medicine.

Isn't it about time that the profession went on record and took an active and concerted stand against such asinine propaganda against the practice of medicine?

The army of anti-medical ballyhooers increases daily like flies or other pestiferous insects. It is all to the same effect—"Everybody knows how to practice medicine except the doctors." What was it Goethe said, "There are so many echoes but so few voices?"

Here's a sample of what Harper's says about us:

PUBLIC'S RESENTMENT CHALLENGES PHYSICIANS

In spite of our natural predisposition to confidence in the doctor and in spite of our general recognition of the altogether miraculous advances in modern medical skill and knowledge, there is obvious everywhere a growing sense of irritation on the part of the public generally toward present medical practice, declares an anonymous writer writing on the subject, "A Patient Looks At Doctors," in the November number of Harpers Magazine.

"The profession, of course, has not been totally blind to the growing difficulties of the public nor to its increasing resentment," the writer points out after describing her difficulties trying to get adequate medical attention in New York. "Here and there individual physicians have foreseen and have even had the courage to advocate as an alternative to the obviously inadequate individualism of American medical practice, some such system of State control or assistance as has already been adopted by twenty-eight civilized nations. There are individual physicians who, in spite of loyalty to their profession, with its generally high standards and its splendid achievements, can understand and appreciate the patient's point of view.

"If private medical practice will not of its own free will meet the needs of and the emergencies of the average citizen, some type of socialization will inevitably result."

ETHICS OF THE MEDICAL PROFESSION HAS BECOME A SHINING TARGET FOR EVERY UPLIFTER

Everywhere and in almost every manner medical men are being beleagured by lay ideas of what ethics should mean to the medical profession.

If the question were less vitally serious to humanity and the humanities, the discussion might be said to partake of the nature of the length of a calvaryman's breeches or the protested size of a lady's shoe. For the ethics of the medical profession both in relation to itself and to its public is inherently and pre-eminently a personal affair.

The only possible premise upon which the right of interference in so delicate a matter could possibly be granted to the general public would be the possible proven fact that in its manner of procedure where professional ethics comes into the picture that this manner of procedure works hardship, distress or injustice upon the public that the profession serves. Naturally scientifically and again inherently the ethical profession itself is the only qualified component of society that can sit in able judgment upon this question, and there is no doubt but that it is this very same aristocracy of decision, this same impregnability of judgment that has the presumptuous mind of an uninformed laity resentfully up in arms. The ethics of the ethical medical profession is a commodity that neither the wealth of Croesus nor the maneuvers of the finest ward organization can traffic in with impunity or success. What men do not understand, nor appreciate nor grasp must swing eternally between the Scylla and Charybdis of fear, and worship or scorn and attack.

It may be said that as we have laws adjudicating certain aspects of commerce, war, finance, transportation, national and international relations, religion and the judiciary, and some of the less fluid arts that there should be similar lay supervision of medicine. Unfortunately medicine is one of the most intangible of the tangible sciences and must always remain so, until the human body, the human mind, and, ay, even the human soul become a different combination of elements. Until rebotism supplants mortality there can not be such an overwhelming debacle of the individuality of the medical profession as

to permit the non-medical mind to essay successfully to dictate to the medical profession what should be its ethics and what should not.

In this age of ultra materialism, of false standardization and of over influential ignorance it is difficult indeed to make the expected silk purse out of the sow's ear or to instill into the comprehension of the efficiency expert who can estimate the cost of making a bed spring by tenths of tenths of a hundredth per cent., the knowledge that some of the greatest of human values are those eluding magnificently the appraiser's eloquent pencil and its skill in reducing all things, human, divine, vegetable, mineral, animal to a set common denominator.

And perhaps of all these human values that must be exempted from such standardization not one rates higher, if as high by half, as the ethics of the medical profession.

To minister to the body as does the church to the soul is the mission of the physician. He must gauge his technique by the individual but his creed must remain intact. And in the famous oath of Hippocrates the ethical physician finds his rules of conduct and his rules of the road.

One of the fundamental precepts of this creed is the sublimation of the profession's ideals and the effacement of the individuals of the profession.

One of the fundamental criticisms uttered by the laity in its attempts to interfere with the medical profession and its questions of ethics is that the profession takes affront and exception to those of its members who deny the professional tenet and insist upon self exploitation rather than ethical effacement.

Ethics of the medical profession has become a shining target for every uplifter, soap-box orator or lampooning pen. A certain set of scriveners has discovered in the medical profession and its creeds and tenets and dogmas and etiquette a gold mine for exploration and exploitation. We find the ethical standpoint of the profession brought to the bar of public opinion for a thousand so-called sins. Every magazine on the news stand almost without exception has something to say about what the medical profession does or does not do. One of its most flagrant sins would seem to be that it "does not advertise" and fails to set its seal of approval upon quacks and charlatans and fakirs who do. Another claim is that it does not take into full confidence on every detail the world and his wife, the patient and the patient's great aunt Sally and all the neighborhood gossips. With some regard for the truth of the old maxim that you cannot "put a quart of milk in a pint cup," the medical profession has consistently refused to try to explain to the laity those things that they neither could understand nor should be allowed to concern themselves with.

It is not the physician nor the physician's methods that this lay criticism is directed against Rather is it a protest that there remains in this world a certain fellowship and a certain science that holds and guards as sacred a few human institutions, and a few human sciences. We live in a world today that demands all veils shall be lifted, no matter what the consequences, and bitter indeed is the punishment meted to the man or to the profession, that serene in its knowledge that some veils cannot and must not be lifted, refuse to do so.

TO CREATE AN A. M. A. COUNCIL ON MEDICAL ECONOMICS

At the Detroit meeting of the American Medical Association Dr. J. B. Harris, California, submitted resolution from the California State Medical Association providing that the American Medical Association should establish a council on medical economics. The resolution was referred to the reference committee on reports of officers. The reference committee recommended "that the Board of Trustees put the principle into effect by the creation of a bureau of medical economics."

This resolution has wonderful possibilities, it will provide a forum of investigation and data collection that will be found extremely valuable to the medical profession throughout the United States in our campaign of enlightenment of the general public.

WE SHOULD SCRUTINIZE CAREFULLY BEFORE LENDING OUR MORAL AND MATERIAL SUPPORT TO THE THOUSAND AND ONE AGENCIES TO THE PHYSICAL AND MORAL UPLIFT

"By the ever increasing tendency towards paternalism we are not only not teaching self-dependence but are steadily weakening character

in the individual. We are robbing him of the habit of the necessity for the thought of tomorrow, permitting him to slumber on thoughtlessly through today. In the last analysis we shall find that this has not been a salutary practice. * * * It is our sacred duty to think long and scrutinize carefully before we lend our moral and material support to the thousand and one agencies for physical and moral uplift."

WILLIAM GERRY MORGAN, M. D., President,
American Medical Association.

DOCTORS COMPENSATION IN RUSSIA

Medical treatment in soviet Russia is no longer private; patients must see state doctors. Those who are not classified as workers will pay a special fee. The average doctor receives a salary of 100 rubles ($50.00) a month. Most of the medical students in Russia today are women.

THE PRESIDENT OF THE AMERICAN FEDERATION OF LABOR SAYS THE DOLE SYSTEM DEVELOPS A PATERNALISM THAT IS DEMORALIZING AND DESTRUCTIVE

William Green, president of the American Federation of Labor at Atlantic City, New Jersey, September 8, said: "It is only one step from compulsory employment insurance to the Dole.

"The best, the real remedy for unemployment is employment," he said. "The obligation rests upon industry to provide employment for men and women willing to work. The dole system embodies a vicious principle, in that it attempts to provide relief by supplying only the minimum of subsistence.

"Besides the dole system develops a paternalism that is demoralizing and destructive. It stifles ambition, destroys initiative and blasts hope."

ADULT DISEASES IN FIRST RANK

Diseases of middle and old age appear to be crowding the scourges of childhood out of the picture. Ten diseases, chiefly adult afflictions, were responsible for 74 per cent. of all mortality in Illinois last year, according to Dr. Andy Hall, State director of public health.

Heart disease led the list. Next came kidney ailments and then cancer. This group takes its toll chiefly from the ranks of those over 40. Pneumonia, fourth on the list, and "accidents," which are fifth, are the only causes of death listed which affect all age groups practically alike. Prominent among the other adult diseases are cerebral hemorrhage, tuberculosis and diabetes.

Medical science has made great strides in eliminating diphtheria, whooping cough, scarlet fever and measles, the common afflictions of childhood. The next step is to develop means to combat the diseases of later life.

MOST ACCIDENTS TO CHILDREN OCCUR IN RURAL SECTIONS

FATAL SICKNESSES REVERSE ORDER BY PREVAILING IN BIG CITIES

Accidents are the greatest of all fatal hazards to children of school age in Illinois and occur nearly twice as frequently downstate as in Chicago, says Dr. Hall.

"Last year 832 fatalities among children from 5 to 19 years old were ascribed to accidents, against 551 to tuberculosis, the next most important cause of death," Dr. Hall said. "The accident rate is highest among grade school pupils, while that from tuberculosis is highest in the high school group, especially among the girls.

"The fatal accident rate among school children downstate was 12.6 per 100,000 population last year, and in Chicago it was 9. The rate from tuberculosis, on the other hand, was 9.7 in Chicago and 5.4 downstate.

"Five causes, accidents, tuberculosis, heart disease, diphtheria, appendicitis and pneumonia, ranking in importance in the order named, were responsible for nearly two-thirds of all mortality among school children last year. Most of these are subject to prevention or cure with proper medical care.

"All five, except accidents and appendicitis, are noticeably more frequent in the densely populated cities than in the smaller communities and rural districts," Dr. Hall said. "The appendicitis rate is the same among urban and rural children, indicating that environment and not the character of medical care available explains the difference in the rates from the other causes named.

DR. JOHN R. NEAL MADE PRESIDENT OF THE NATIONAL UNDERWRITERS

Dr. John R. Neal, chairman of the Illinois State Medical Society Legislative Committee, at the recent meeting of the National Underwriters was made President of the Health & Accident Underwriters Conference for the coming year. Dr. Neal has served for several years as medical director of the Abraham Lincoln Life Insurance Company of Springfield, Illinois. He has long been active in insurance affairs and is regarded as an especially able accident and health underwriter. He has been equally prominent in medical as well as in insurance circles.

After his graduation from Northwestern Medical College in 1909, he entered the United States Public Health Service and was later for a time in private practice, becoming medical director of the Commercal Health & Accident (later consolidated with the Mutual Life of Illinois) on its incorporation in 1914. He was one of the original directors of the Mutual Life of Illinois, now Abraham Lincoln Life, when it began business in 1916.

Dr. Neal's insurance activities were interrupted by the entry of the United States into the war in 1917 and he was one of the first physicians called to the colors. He served with distinction in France and since his return in 1919 has devoted all of his energies to the offices of secretary and medical director of the Abraham Lincoln Life.

MEMBERS WISHING TO READ PAPERS BEFORE THE SURGICAL SECTION ILLINOIS STATE MEDICAL SOCIETY

Those wishing to read papers before the surgical section of the Illinois State Medical Society at its next meeting in May, at East St. Louis, will please communicate with the officers of the Section—Dr. J. Bacon, Peoria, Illinois, Chairman; Dr. J. T. Gregory, 826 E. 61st St., Chicago, Illinois, Secretary.

DOCTORS WISHING TO READ PAPERS AT THE RADIOLOGICAL SECTION ILLINOIS STATE MEDICAL SOCIETY

The program for the meeting of the Illinois Medical Society is now in the process of development. Anyone desiring to appear on the program in "Radiology" please correspond with Dr. Henry Grote, Bloomington, Illinois, or Dr. E. L. Jenkinson, St. Luke's Hospital, Chicago, Illinois.

DOCTORS WISHING TO PRESENT PAPERS BEFORE THE SECTION ON PUBLIC HEALTH AND HYGIENE, ILLINOIS STATE MEDICAL SOCIETY.

Members desiring to present papers before the section on Public Health and Hygiene at the East St. Louis meeting, May 1931, are invited to communicate with the undersigned officers. Since the copy of the program must be in the hands of the publisher not later than March 15, 1931, it is essential that the program material be ready not later than February 25, 1931.

DR. CHAS. H. MILLER, Chairman,
826 East 61st Street, Chicago.
DR. ARLINGTON AILES, Secretary,
La Salle, Illinois.

Correspondence

I KNOW ONLY TOO WELL WHAT I MEANT BY THE WORD PROMISCUOUS FREE SERVICE

Wheeling, W. Va., Oct. 3, 1930.

The West Virginia Medical Journal

To the Editor:

I received your issue for July and was highly interested in the very able editorial that you allowed my article to be the subject.

As you write on I can easily see you are interested in the philanthropic side of medicine. As my article said, "Had we collected our accounts and had NO PROMISCUOUS free service."

I had a day nursery and was connected with two free clinics for many years and I know only too well what I meant by the word promiscuous. I can well see, too, that the men who worked along in them have not had any ample rewards while those who avoided them have often had more respect granted to them. This solves no ethical problem, of course, but it has had a big effect on economic medicine.

Following the writing of this article "Descartes Was Right," I appeared in many cities

but I was never able to amplify the original address.

However in Milwaukee the other day talking before their State Society on the general program, I discoursed on the general practitioner. I fancy you feel this subject is rather threadbare and so it is, but if it is ever published in their state journal I hope you will read it and give me your unbiased opinion. Because although this is a threadbare subject, I am trusting you may find it of slight value not in any great literary merit—it has none—but in stating without any attempt at concealment the actual situation with that personage. I would not say this to you had it not been said to me. I mention it to you because in reading over your journal I came across a report by Dr. Harold M. Camp on the meeting of A. M. A. at Detroit. The paper at Milwaukee took up the matter of how the American Medical Association is very largely beyond the rank and file to control. It is on this I shall at some time or other welcome your opinion, either for or against.

Thanking you again, I am,

With best wishes,

HARRY M. HALL, M. D.,
Associate Editor.

REPORT OF SEVENTH ANNUAL MEETING OF THE WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

Meeting held at Detroit, Michigan

June 23 *to* 26, 1930

Mrs. George H. Hoxie, President, Presiding

Members attending meeting	187
Delegates attending meeting	79
Alternates	20
Attendance from Illinois (Members)	16
Guests from Illinois	10
Delegates from Illinois	5

Auxiliaries organized in 37 States—10 States not organized.

The State of Pennsylvania has the largest membership, having 1688 members. There are 67 counties in Pennsylvania, 34 of which have Auxiliaries.

Listed Membership in the National Auxiliary	12,100
Paid Membership—June 16th, 1930	10,220

(Seven States did not send in their list of members).

2,255 Copies of By-Laws were sent out.

2,000 Copies of Study envelopes were sent out on Physical Defects.

32 Medical Journals published Auxiliary articles.

The following resolutions were adopted:

1. *Resolved,* that all State Treasurers be instructed to pay their national dues on the last day of the fiscal year of their respective State Auxiliaries.

2. *Resolved,* that in future new State Auxiliaries pay an initiation fee of $5.00 in order to obtain representation at their first national convention, thereafter paying full dues at the close of their fiscal years, as heretofore provided.

3. WHEREAS, the study envelopes have been enthusiastically commended by the Advisory Council of the American Medical Association and whereas those State Auxiliaries which have used them have found them of great value, be it resolved that their use be continued and that all State and County Auxiliaries be urged to appoint Study Program Chairman, and that these chairmen get in touch immediately with all Presidents and Presidents Elect of State and County Auxiliaries in order to secure the full advantage of their use as program material.

4. *Be It Resolved* that the Hygenia Committee be instructed to leave to the discretion of local Auxiliaries the advisability of soliciting individual subscriptions, but that we continue to push Hygeia as an instrument of health education by realizing funds from benefit entertainments or otherwise and by applying those funds to the purchase of subscriptions to be presented to teachers, libraries, legislators and other groups; and that we continue to acquaint other women's organizations, leaders of youth, superintendents of schools, etc., with the magazine.

5. WHEREAS, the Auxiliary Primer issued by the Medical Society of the State of New Jersey is the most comprehensive presentation of the aims and objectives of this organization containing as well quotations from eminent members of both the Medical Society and the Woman's Auxiliary regarding the need for a Woman's organization, be it resolved that the wide use and distribution of the Primer be strongly recommended throughout our entire membership.

6. WHEREAS, Parent-Teacher Associations, Federated Clubs, the League of Women Voters and the Auxiliary to the American Legion and other similar organizations are influential in their various civic and educational capacities, be it resolved that the Auxiliary to the American Medical Association urge upon its component state auxiliaries the advisability of participation through individual membership in the various activities of the aforementioned organizations with a special view (1) to the promotion of their health programs and (2) to cooperation in the public health projects of their Boards of Health.

7. WHEREAS, the annual meeting of the Woman's Auxiliary to the American Medical Association is always a great inspiration and stimulation to those in attendance, be it resolved that the component State Auxiliaries be urged to make possible the attendance of their Presidents or Presidents Elect by payment of all or part of their expenses.

SUGGESTIONS FROM THE NATIONAL AUXILIARY TO THE STATE AUXILIARY

Each State to have an advisory board appointed from State officers of State Medical Society.

All bulletins, letters and pamphlets sent out by Counties should go through State President's office.

Urge P. T. A. organizations to have a doctor's wife, who is a member of the Auxiliary, on Committee.

Chairman of Public Relations to have contact with National Chairman and notify Counties of their work.

State Study program chairman to advise all County Elect Presidents to study envelopes.

Immediate cooperation with State Chairman in answering letters. Please send names of members in promptly for complete list to be filed in card record in President's office.

Doctors favor educational program so we may educate ourselves to public health questions and problems of the Medical Society of today.

No State in arrears of dues shall be entitled to representation at the general meeting. New Auxiliary can pay initiation fee of $5.00 for representation at general meeting.

March 31st Fiscal Year of National Auxiliary.

OFFICERS

Pres.—Mrs. J. Newton Hunsberger, 514 W. Main St., Norristown, Pa.

Pres. Elect.—Mrs. A. B. McGlothlan, 821 N. 24th St., St. Joseph, Mo.

Rec. Sec.—Mrs. Arthur T. McCormick, Brown Hotel, Louisville, Ky.

Corresp. Sec.—Mrs. H. C. Podall, 622 Swede St., Norristown, Pa.

Treas.—Mrs. Fred L. Adair, 5844 Stony Island Ave., Chicago, Ill.

VICE-PRESIDENTS

1st—Mrs. Southgate Leigh, (chairman of organization), 526 Shirley Ave., Norfolk, Va.

Mrs. James Blake, Hopkins, Minn.

Mrs. C. W. Garrison, 317 Ridgeway St., Little Rock, Ark.

Mrs. Jas. F. Percy, 1030 S. Alvardo St., Los Angeles, Cal.

DIRECTORS

One Year

Mrs. George H. Hoxie, 3719 Pennsylvania Ave., Kansas City, Mo.

Mrs. Allen H. Bunce, 368 Ponce De Leon Ave., N. E. Atlanta, Ga.

Mrs. G. Henry Mundt, 7000 South Shore, Chicago, Illinois.

Mrs. Charles E. Sears, 778 Flanders St., Portland, Oregon.

Two Years

Mrs. Frank W. Cregor, 1621 N. Meridian St., Indianapolis, Ind.

Mrs. Basil L. Connelly, 1197 Virginia Park, Detroit, Michigan.

Mrs. Ephriam R. Mulford, 100 E. Broad St., Burlington, N. J.

CHAIRMEN OF STANDING COMMITTEES

Program—Mrs. E. V. DePew, 115 E. Agarita Ave., San Antonio, Tex.

Finance—Mrs. T. O. Freeman, 1204 Wabash Ave., Mattoon, Illinois.

Legislation—Mrs. Elmer L. Whitney, 18224 Wildmere, Detroit, Mich.

Public Relations—Mrs. A. Haines, Lippincott, 406 Cooper St., Camden, N. J.

Hygeia—Mrs. R. N. Herbert, 1509 Stratton Ave., Nashville, Tenn.

Revisions—Mrs. W. W. Babcock, 1720 Spruce St., Philadelphia, Pa.

Press and Publicity—Mrs. John O. McReynolds, Maple Terrace, Dallas, Texas.

Printing—Mrs. Edgar S. Buyers, 1533 DeKalb St., Norristown, Pa.

Social—(Convention) Mrs. Walter Jackson Freeman, 1507 Spruce St., Philadelphia, Pa.

Parliamentarian—Mrs. A. S. Kech, 218 Logan Ave., Altoona, Pa.

Historian—Mrs. S. C. Red, 817 Carolina Ave., Houston, Texas.

MRS. R. K. PACKARD,
President.
Woman's Auxiliary to the Ill. Medical Society.

DEATH OF GEORGE S. DAVIS

Parke Davis and Company announce the death, on October 1, of George S. Davis, one of the men to whom the house of Parke, Davis and Company owes its corporate name. Mr. Davis, who was 85 years old, and who had been in poor health for a considerable period, retired from active business efforts over thirty years ago.

A native of Detroit, he began his business career as a clerk in a retail drug store. Later he engaged in the wholesale drug business, and then, in 1867, he associated himself with the pharmaceutical manufacturing concern of Duffield, Parke & Co. In 1871 Dr. Duffield retired from the company and the firm name became Parke, Davis & Co., with Mr. Davis occupying the position of general manager.

He was a member of the Masonic order and of the Sons of the American Revolution. His grandparents, both paternal and maternal, took part in the Revolutionary War.

ABBOTT LABORATORIES AND SWAN-MYERS COMPANY JOIN FORCES

In order to enlarge the strong research facilities and personnel of both companies, to expand the sales organizations and increase the distribution of their ethical pharmaceutical products, the Abbott Laboratories of North Chicago, Illinois, and the Swan-Myers Company of Indianapolis, Indiana, have agreed to combine their resources and consolidate their managment. This combination brings into one enlarged organization two groups of people actuated by the same high stand-

ards in ethics, scientific research and controlled manufacture.

Alfred S. Burdick, president of the Abbott Laboratories, states that among those to join the active management of the combined companies in North Chicago are R. M. Cain, who will be vice-president, in charge of sales; Edgar B. Carter, director of biological laboratories, and O. C. Durham, in charge of pollens and allergy products; A. E. Sndyer, C. R. Jackson and others.

The Swan-Myers business was organized in 1909. It has grown very rapidly and enjoys a fine reputation for its high class line of ephedrine products, bacterial vaccines, ampules, pollens and pollen extracts and intravenous solutions, dextrose and other ampules, ophthalmic and nasal ointments, glandular and kerakote products and other specialties. Its ephedrine inhalant "66" was the first plain inhalant to be accepted by the council on pharmacy and chemistry of the American Medical Association.

E. H. Volwiler, chief chemist of the Abbott Laboratories, becomes a member of the board of directors; also James F. Stiles, who has been elected treasurer and Edmund L. Drach. S. DeWitt Clough became vice-president, and F. W. Scheigert, secretary. The laboratories of the Swan-Myers Company will continue to be operated in Indianapolis until further notice.

MILK INJECTION IN PELVIC INFECTION

Foreign protein therapy has been proved to give good results in many cases of infection. Based on experience in 22 cases of pelvic infection, Dr. P. M. Murray, of New York, in *Am. J. Surg.*, reports that:

1. Milk injection is a valuable adjunct in the conservative treatment of pelvic infection.
2. It is without uncomfortable local or systemic reactions, except in a very small percentage of cases.
3. Marked increase in the total leukocyte count and a corresponding increase of the polymorphonuclear count is the rule; in 77 per cent of cases, the temperature promptly returned to normal after milk injections.
4. Definite clinical improvement was noted in 60 per cent of cases.

The average number of injections given was 4.8. Ordinary ice-box milk is used, boiled for 10 minutes in a sterile test tube in a water bath.—*Clin. Med. and Surg.*

PREGNANCY AND LABOR COMPLICATED BY GRANULOMA INGUINALE

Lester A. Wilson, Charleston, S. C. (*Journal A. M. A.*, Oct. 11, 1930), reports the analysis of fourteen cases. It seems that there is a tendency to stillbirth and death of infants in granuloma inguinale. Granuloma inguinale is not of venereal transmission, as none of the husbands of these patients were diseased. The Negro race is far more susceptible than the white race. Under the influence of pregnancy the disease progresses rapidly, probably owing to the congestion of the parts; after labor the condition tends to improve. This series of cases shows that the uterus if not traumatized or infected by handling can take care of a great deal of infection.

A SELECTED PUBLIC HEALTH BIBLIOGRAPHY WITH ANNOTATIONS

RAYMOND S. PATTERSON, Ph. D.

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Anon. Present Status of BCG Vaccination Against Tuberculosis. Weekly Bull. (New York City Dept. of Health), 19, 22: 173 (May 31), 1930.

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Anon. Preventive Medicine and Private Physicians. Weekly Bull. (New York City Dept. of Health), 19, 24: 189 (June 14), 1930.

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Carley, P. S., and Wenger, O. C. The Prevalence of Syphilis in Apparently Healthy Negroes in Mississippi. J. A. M. A., 94, 23: 1826 (June 7), 1930.

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Emerson, K. Where Are We Going in Tuberculosis

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McLaughlin, A. J. Public Health Administration. Pub. Health Rep., 45, 21: 1191 (May 23), 1930.

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Van der Bogert, F. Education, Health, and Health Education. New York State J. Med., 30, 12: 708 (June 15), 1930.

Victor Clarence Vaughan—The life and works of this great leader in public health are fitttingly portrayed in a series of articles in a memorial number of the magazines of which he was the first editor-in-chief.

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Gonorrhea Prevention—The status of gonococcus infection, what we are doing about preventing the spread of the disease, and what we ought to be doing about it are all excellently told.

Pelouze, P. S. The Prevention and Treatment of Gonorrhea. New Eng. J. Med., 202, 26: 1233 (June 26), 1930.

ADMINISTRATION OF THIONIN AND METHYL VIOLET IN INTESTINAL BRUCELLA INFECTION

The dye was administered by Hugh R. Leavell, Mary A. Poston and Harold L. Amoss, Baltimore (Journal A. M. A., Sept. 20, 1930), to three patients showing a persistence of Brucella in the stools, in the form of pills coated with phenyl salicylate, from 25 to 200 mg. being given in the course of twenty-four hours. At the same time, a retention enema of 300 cc. of from 1:25,000 to 1:100,000 of the dye was given daily following a soapsuds enema. The dyes were given for approximately a week at a time, and during periods between courses of dye cultures were made of the stools daily. Slight constipation was the only symptom that could possibly be attributed to the use of the dyes.

Society Proceedings

THE COUNTY MEDICAL SOCIETY—ITS DUTIES AND RESPONSIBILITIES IN RELATION TO PUBLIC HEALTH*

ARLINGTON AILES, M. D.
LA SALLE, ILL.

I wish to qualify firstly by stating that, before becoming a whole time health officer, I had practiced medicine for eleven years, and that I have always tried to retain the view point of the practicing physician. I have also gained a new view point, namely, that of the health officer; and being a health officer, I believe that I have also gained some insight into the view point of the average layman. These view points are apt to differ radically, and the conscientious health officer finds himself about in the middle of them. He finds himself wishing that the medical men as a whole could see more of his problems and lend more sympathetic aid in helping him solve them. He sees the tendency of misguided and unrestrained leadership among lay groups in public health. By close association with large numbers of the common people, and innumerable visits into their homes and conversations with them he senses that, were the issue to come to a vote under powerful leadership, they may change the existing order in medicine.

With the coming of the radio, good roads and good schools everywhere, public health is going forward with leaps and bounds. All magazine and newspaper editors realize it so that one can hardly pick up a paper any where without finding an article on public health. It seems to me to have gained such an impetus that to oppose it or to appear to oppose it will react fatally to any group doing so.

The profession is attempting to do their part by assisting in the proper health education of the public, through radio talks, newspaper articles, and their speakers' bureau, but I do not believe they go far enough in their leadership. To really lead, one must become a part of the throng and never get so far ahead that he is lost sight of. He must remain with them and appear sympathetic. It is then he has a chance to lead. If he waits until the views of the crowd are so radical that he cannot accept them, even in part, then his chance for leadership is gone forever. Frankly, I believe that I am ready to state that many people believe right now that organized medicine is opposed to public health, as they construe it. They are suspicious of the motive behind what they term propaganda. They miscontrue the opposition to the Sheppard-Towner Act, the County Health Officer Bill, etc. All this is leading up to some suggestions that I have to make.

I do not believe that county medical societies can assume any consistent, sustained relationship or leadership in public health without themselves selecting a leader. This leader should be one of them, selected by them and guided by them, in the interests of public health. I refer to a county health officer. If the profession does not get behind a bill making this possible, I believe most of us will live to see the day when we will have to accept such a bill not wholly satisfactory to us. As I have previously said; the radio, good roads, newspapers, magazines, telephones and the ease of social intercourse are going to take away the distinction of urban and rural and merge us into a homogenous people. Mass psychology may gather force like a mob spirit and plunge us into some ill considered, impractical legislation that will be hard to correct. I was practicing medicine in Ohio in 1919 when the Hughes Bill, creating county health departments was passed in Ohio. It came suddenly, and as I remember was passed almost uanimously, yet had to be amended two years later and was almost repealed in the reaction. I believe now that they have a practical working law, free from politics in so far as the local health officers are concerned. The county health officer must be a physician in good standing. He works for a board of health consisting of five members, at least one of whom must be a physician. Their terms are for five years and are so arranged that one term expires each year. They receive no salary, hence only men of high character with a civic sense of duty accept the appointment. It is surprising that men of high character accept these posts and guard the trust as zealously as their own businesses. These men are appointed by the County Advisory Council, which is made up of the chairmen of the town-

*Read before the Secretaries' Conference, Illinois State Medical Meeting at Joliet, May 20, 1930.

ship trustees, and the mayors of the incorporated villages. This advisory council is likewise unsalaried, and by law are ordered to meet once a year for the purpose of advising with the health officer about conditions in their townships or villages, hearing the annual report of the health officer, and electing a member of the board of health. You can see how difficult it is for politics to get at the health officer. It would require three years of difficult political organizing among the members of the advisory Council, to change the complexion of the board of health, in order to oust the health officer. If the health officer cannot, by good work, ingratiate himself into the good will and confidence of his board in three years, he probably deserves to be ousted.

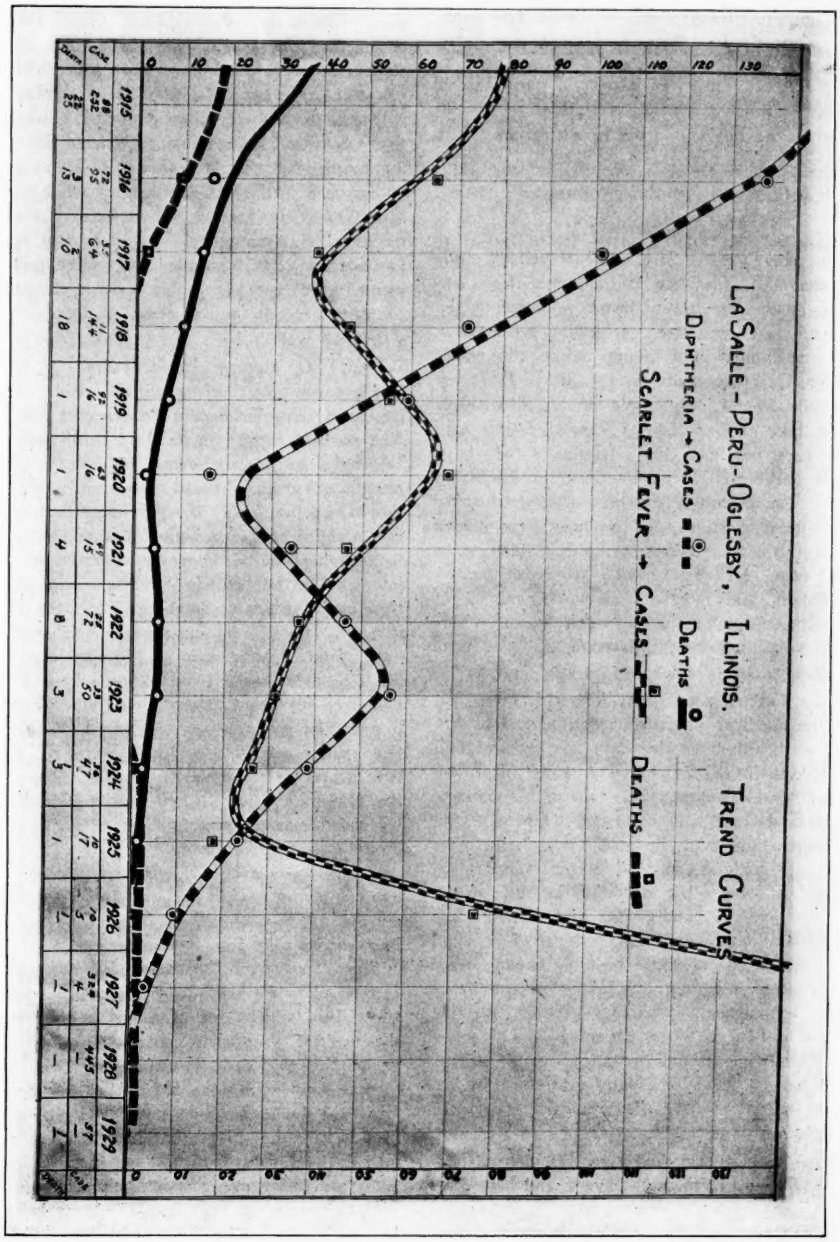
The health officer should be a physician and preferably one trained in public health. He should first be a physician however, and preferably one who has successfully practiced medicine and demonstrated his ability to get along well with his fellow practitioners. He must have their confidence, not be old or infirm, because the health officer's job in a county requires considerable activity and great endurance. One of the best health officers is one selected from your midst, who has been successful and in whom you can place confidence and trust. He will rapidly learn public health and practice it in a way that may best serve the community in which he works. Finally he should be paid a salary that will justify his time and energy.

The physicians then must be prepared to make some concessions to this man and his board of health. There will come up the question of school examinations, diagnostic clinics, etc. which if properly conducted are an aid to the physician's income instead of a detriment, besides a valuable public health procedure. Then comes the matter of immunization for smallpox, diphtheria, possibly scarlet fever and others. This I am sure can be worked out on a plan that will be of benefit to all concerned. The health department will do considerable immunizing but the physicians will do more than they ever did in their lives. Concessions like these will please the public, and retain their confidence in the altruism of the profession, yet will retain for the profession the basic elements of that profession. I believe the good sense of the American people will always grant to physicians the right to heal the sick and to charge a decent fee, providing their good opinion of the profession is properly nurtured. It is in this field of preventive medicine then that this nurturing can occur and in which both physicians and health departments alike should work in sympathetic understanding for the betterment of all. When the millennium comes, in which every physician is a health officer to his private families, then will there be no need for health departments, county or otherwise.

Another field of endeavor which I believe the county medical society should become interested in and participate in, is group advertising in the local press. Articles are never so interesting as when they have local color. Even if the articles were prepared by the state or national association, if they were dressed up locally by a local committee, they would be of much more value. If they were general, the editor would probably be glad to get them, and accept them free. But the profession needs to assert scientific medicine in a positive way—a way that will pointedly lead the public away from patent medicines, cancer cures, and a host of other fakes that are fooling the public and robbing them most of the time, of their only chance of cure. There probably should not be any negative advertising against the opposition types of practice or the so-called cults, but strong positive statements of the basic principles and soundness of scientific medicine, together with the broad training required to practice it, the right to a decent fee, and a hundred and one other sound arguments, will educate the public and keep them in line with scientific medicine. The writer frequently feels the urge to combat, by word of mouth, the public press, and otherwise, practices that are not in the interest of the public health and scientific medicine, but he is a servant of the whole people, and knows that he and his board of health would be waited upon by an indignant delegation of the interests offended. It is here that I have often wished that the county medical society itself would educate the public through paid advertising.

Another advantage I see in this connection is that the, now not unfriendly, editor would become more actively friendly. The power of the press is tremendous and I think anything that

will cultivate their active friendship is advantageous, and especially so in unfriendly legislation. Newspapers are also often annoyed by medical societies passing resolutions that the individual members should, so far as possible, keep their names out of the papers in connection with surgical operations, accidents, etc. These things are news, and had best be given the local papers courteously by the doctors themselves. Reflecting the view point of the press, one editor told me not long ago that "This stuff is news and I am going to get it some way and print what I get." We can hardly blame him for his view point, and for publishing what he gets, even though it may be erroneous and obtained from misinformed sources.



In conclusion, from my experience, I think the responsibilities listed are major, and that the profession should make some concessions, either in whole or in part along these lines. Scientific medicine is based on sound principles, and on them has shown like a light of truth for ages. Around this light from time to time the cults and isms have flown, singed their wings, fallen and have passed from existence. It is up to us to keep the light burning ever brighter, and not risk its being dimmed in the slightest by the force that supports it—public opinion.

DISCUSSION

Dr. C. S. Skaggs, East St. Louis: I believe absolutely in what Dr. Ailes has said. Some of his remarks brought the thought of what we have in the State Educational Committee. I believe we have a wonderful opportunity of bringing before the public of our state the proper care of the sick. It is my policy to talk friendly to people about whom they should have take care of them. Some day they may have better care, but until that time they should have us. I have not beaten about the bush in discussing the matter. The doctor is the man who must think for them in these questions, and we must have money enough to get education and keep up our standing as professional men. I have frequently spoken of doctors being underpaid, and I believe it has found virgin soil. If we would take time to read up on things medical we would not have the wrangling over non-medical things in our clinics.

Dr. W. H. Smith, Benton: Dr. Ailes referred to the fact that the medical profession was spreading the good news of health over the radio, by lectures and by other means. That is true. A great deal has been accomplished. But we have, down in southern Illinois, a few doctors who will send their names in with the suggestion that they will talk before the public and then go home and fail to report a case of scarlet fever or some other condition because of the prestige of the patient's family. Or they dispute some other ethical physician's diagnosis because of personal feeling. A doctor has no more right to bootleg scarlet fever or smallpox than the hunky in the backwoods has to bootleg home brew. Are we positive enough in our statements to our patients? We all know that by dilly-dallying around we allow many patients to slip out of our hands and land into those of the chiropractor, whose positive diagnosis will cause the patient to recover.

A couple of years ago we had a gentleman from Chicago lecture the county medical society, and before his coming I ordered from the American Medical Association their pamphlet on periodic health examinations together with blanks. There were enough to furnish each of our members one of these two weeks before the lecture, but by the time the lecturer came, two-thirds did not know where to find their health blanks. You are perfectly correct about the periodic health examination. When a Chicago man gets through with a full physical examination he charges $36.50, and almost invariably his patients return.

Down at Carbondale they have trouble in having the incoming students even vaccinated against smallpox. There was an outbreak within the last year or so, and on securing the vaccination status of the students, twelve hundred at that time, less than fifty per cent. were found to be protected against smallpox.

Dr. I. F. Harter, Stronghurst: I would suggest that we lose no opportunity to educate the laity. During health week our little society in Henderson County had a very interesting meeting of the laity, addressed by an excellent speaker, who discussed the handicaps of school children and the prevention of scarlet fever and typhoid. It was very instructive and the comments were very favorable. Such discussions with the laity are not only to their advantage, but to physicians as well.

Dr. D. D. Monroe, Edwardsville: I am interested in the earnestness with which Dr. Ailes presented this paper. One point cannot be stressed too frequently. The medical society should lead in all health matters. We have sat by for years and years, content with practicing curative instead of preventive medicine. We should practice both. No intelligent layman thinks he can practice medicine better than a doctor. We are trained, he is not, and he know it. If we are deeply interested in our patients and talk and practice positive medicine saying nothing about the chiropractor in public, we will minimize lay interference.

A friend of mine went to five physicians and asked for a periodic health examination. Four of these men examined his heart through his clothing; one stripped him to find out what was the matter. The four practiced rotten medicine, and you know it. I have seen life insurance examinations made that way. It is not fair to patients. They lose confidence in us. If we practice as we preach they will continue to believe in us.

Dr. N. S. Davis, III, Chicago: The question of advertising by county societies has been discussed off and on for several years. It could be done relatively inexpensively in some counties, but in Chicago, the expense, $40,000 or $50,000 would make it prohibitive. If the plan used in New York last autumn were adopted in which, out of a budget of about $30,000, the medical profession contributed about $2,000 and various health boards, insurance companies, and philanthropic foundations the balance, it might be feasible. It would do no harm to put before the public in the proper way the things that have been difficult to get into the newspapers in most communities.

As preventive medicine is diminishing the amount of illness, something must be done to make up for this loss of business. An increase in the number of health examinations will accomplish this. Health examinations will give the physicians an income to take the place of that derived from illnesses we no longer have and will make possible the early diagnosis of diseases

which otherwise might not be discovered until so far advanced that relief is impossible. From the economic viewpoint both of the physician and of the public, health examinations are of great importance. Publicity and advertising will best sell them to the public. Either is relatively expensive so the profession will have to think it over carefully before society dues can be raised to a point to make either possible. It is now possible to get a certain amount of free time over the radio, usually at a time when relatively few people are listening. If we could persuade some organization to regularly boost health examinations in the way the Pepsodent Company boosts periodic dental examinations in connection with their Amos and Andy program, it would help and a great deal of headway could be made.

Dr. Emmet Keating, Chicago: I think all physicians in Illinois agree that the work of the Lay Education Committee has done more than any one thing, to arouse the interest on fhe part of the public in periodic physical examinations of both the sick and apparently well. The activities of the Lay Education Committee, for the years it has been in existence, are noted for good taste and the broadcasting of talks in keeping with medical facts and generally accepted opinion. This is largely due to the Committee's established rule of censoring all proposed talks. Few physicians are experienced speakers, and their own, as well as the public interest, is safeguarded by receiving the advice and counsel of the members of the Committee.

There is one factor that has retarded the progress of the work of the Lay Education Committee, namely: that periodical and complete physical examinations have not been sold to the medical profession. As one of the speakers in this conference has just pointed out, a great many physicians listen to hearts and lungs with the bell of the stethoscope on the outside of the patient's overcoat. There is small hope of that type of physician ever doing a complete physical examination.

Probably the greatest reason why doctors do not want to give health examinations is because they do not believe they can convince their patients that they can do something for them that is worth more than continuous office calls. The doctor who has not the courage of his convictions and who is not willing to take and to give the time necessary for the making of a complete physical examination, because of fear of incurring the patient's ill-will and contempt for trying to sell him something he does not want and is not conviced that he needs, will not increase the number of periodic health examinations.

We cannot hope to sell this idea until we can convince doctors that the practice of medicine has changed considerably; that no longer can they hope to depend upon acute illnesses for their year's income and that they must strive to prevent disease by careful examinations and continuous supervision of their patients.

Dr. Arlington Ailes, La Salle (closing): I have noticed in my work that some school teachers seem to wish to block public health work, and I think that is another field where the medical societies might be interested—in boards of education, etc. It seems we have all kinds of intelligence—a banker will not often make a mistake in finance, but he has little medical intelligence. A physician will not often make a mistake as to proper diagnosis and treatment, but often makes very bad financial investments. It seems that public school teachers, while enlightened and intelligent, make grave mistakes in scientific matters. A coach or athletic director will advise a chiropractor for minor injuries. I have had difficulty with that sort of thing. They do not seem to know anything about the fundamentals of scientific medicine, bacteriology, pathology, etc. I wonder if that could not be a field of interest, to see what could be done about the selection of teachers with the proper viewpoint.

THE CARE OF THE WOUNDED OF THE DIVISION IN THE FIELD*

JAMES J. McKINLEY, M. D.
Colonel M. C., Division Surgeon 33 Division, Ill. Nat. Guard
CHICAGO.

The care of the sick and wounded in time of war and disaster is as old as history. It is not all an unselfish act. In time of a disaster our desire is to get as many injured as possible back to the productive walks of trade and commerce, as well as to prevent suffering. In time of war we must keep as many men on the firing line as is possible, as well as relieving pain.

When we canvassed the field to select a motto for the escutcheon of the 108th Medical Regiment, we ignored Aesculapius, we scorned Hippocrates, and we slighted Galen, and yet we honored them all by taking the Latin word "servamus" (we conserve). That motto really illustrates in full the function of the medical troops.

When an action is imminent the medical detachment of the infantry regiment carries its equipment as far forward as is possible in an ambulance; it is taken the balance of the way by wheel litter and by hand carry. A suitable spot at a point within 500 yards of the front line is selected in a protected area, and the Battalion aid station is put in operation.

Contact agents have already gone forward with the infantry company, and as soon as the engagement starts they contact the aid station and lead the first aid platoon out to the wounded, where dressings and emergency splints are ap-

*Read before joint session on Medicine & Surgery, Illinois State Medical Meeting, May 21, 1930.

plied and "emergency medical tags" attached to wounded. The litter bearer platoon of the medical detachment comes forward and carries the wounded back to the Battalion aid station, where dressings are adjusted and splints applied. Anti-tetanus serum is administered, recorded on the "emergency medical tag," and a cross of iodine placed on the forehead of the wounded to prevent the giving of a needless second dose. Where morphin is needed it is given and recorded on the medical tag.

Contact agents, having come forward from the collecting company of the medical regiment with the medical detachment, now go back to the collecting company and lead the litter bearers of the collecting company to the Battalion aid station, and the wounded are carried back to the collecting station. This carry is done with ambulances when possible. The collecting station has two large ward tents and a kitchen. Foods and cigarettes are given, dressings adjusted, and wounded given a chance to rest a while. This station is from 500 to 1,000 yards or more behind the front line, according to conditions.

The collecting company having been brought forward by the ambulance company, their location is known, and the evacuation is soon started to the hospital station, which has been established from five to ten miles in the rear of the firing line. The ambulance company has established an ambulance station a mile or so in the rear of the collecting station, and a shuttle system is started, so that for each ambulance that comes back from any collecting station, another is sent forward to take its place for that particular station.

At the hospital station, which has been established by a hospital company of the medical regiment, dressings are adjusted, food, cigarettes and necessary medicine are given. This is the rear of the divisional area as far as the medical aid is concerned. There has been assigned to the division by the army a surgical hospital, which is always placed at the division hospital station, and takes charge of those wounded that need immediate surgical attention and those who are unable to continue to the rear. Evacuation from this point is done by army ambulance to evacuation hospital, twenty to forty miles in the rear of the front line.

From the front line to the evacuation hospital, the things to be guarded against are too much handling and too much surgery. I have seen no good done by the surgical hospital that could not have been done by the division hospital station. I predict its elimination in the not distant future.

With modern roads and motor ambulances, there ceases to be such a thing as non-transportable wounded. I vision an ambulance picking up the wounded from the collecting station a few thousand yards in the rear of the front line, and transporting them to the rear of the division area, where the ambulance with its wounded will be turned over to the army in exchange for a fully equipped and serviced ambulance. This will give the minimum of handling.

Sorting of patients both as to degree and kind of wounds is started at the battalion aid station and kept up till they leave the division area.

Supplies are delivered from rear to front, in exchange for those received with patients from front to rear. In this way a shortage at the front is prevented.

The Medical Regiment of the 33rd Division stands ready, and is the only mobile unit in Illinois fully equipped, to render aid to the civil population in any traumatic epidemic.

My slogan in the first 72 hours of a traumatic epidemic, as in the care of the wounded soldier from the front line to the evacuation hospital, is

The maximum of careful, intelligent nursing;

The necessary dressings, antitoxins, medicines and splints;

The minimum of major surgery and handling.

I will now show you a moving picture of care of the wounded from the time they receive their wound till they are started in the army ambulance to the evacuation hospital.

A SHORT RESUME OF SOME OF THE HISTORY OF ROENTGENOLOGY*

I. S. Trostler, M.D., F.A.C.R., F.A.C.P.

CHICAGO

This is the 35th year that we have had the roentgen rays, and it is within a month of the date of the original discovery as far as I am able to learn. Not much having been presented be-

*Chairman's address, Section on Radiology Meeting of the Illinois State Medical Society, May 22, 1930.

fore the State Society of a historical nature in regard to this subject, I am going to take up a little of your time in reading a resume of some of the more important events relative thereto.

The first occurrence of much importance, bearing directly upon roentgenology was the discoveries of Faraday in 1806. After passing electric currents into and through bell jars, and more or less exhausted tubes, he discovered changes in color and in resistance to the currents in the greater degrees of exhaustion.

This was further developed and reported on by Sir Snow Harris and Geissler in 1839, Maxwell in 1840, Sir William Thmopson, Sprengel and Gassiott in 1865, Hittorf in 1865, Goldstein in 1876, Warren de la Rue, Hugo Miller and Spottiswood in 1877 and others.

From 1877 to 1888 the intensive study, research and investigation of Sir William Crookes and his energetic students and coworkers resulted in the announcement by Crookes that matter was radiant. This rather startled the scientific world, and was really the first scientific showing that vacuum tubes produced or showed something that was not at that time known.

J. J. Thompson and Wiedman in 1888 followed closely by Hertz at Bonn investigated the electrical discharges in highly exhausted vacuum tubes. Leonard, assistant of Hertz, in 1894 proved the possibility of the cathode rays passing through the walls of the vacuum tube, while Elster and Geitel in Germany and Perrin in France reported the results of their research along the same lines at about the same time. There can be little doubt but that all these later workers produced x-rays and the time was ripe for the great discovery.

April 30, 1895, Wilhelm Konrad Röntgen, director of the Department of Physics of Wurzburg University, while experimenting with Crookes and Hittorf tubes discovered the x-rays; but did not report his discovery until nearly the end of the year. There are several versions regarding the actual way in which these rays were discovered as well as varying dates of the discovery.

Dr. T. S. Middleton, late of Chicago, was a student in the Department of Physics at Wurzburg at the time of Röntgen's discovery and gave me what I believe to be the correct version. He said, "Professor Röntgen was working with a Hittorf tube covered with black paper, energized by a Ruhmkorff coil, and was studying the fluorescence of a barium-platino-cyanide screen on the afternoon of the last day of April, 1895. He was called away for a few minutes, and laid the glowing tube upon a book which contained a large, flat, antique key, which was being used for a bookmark.

"A loaded photographic plate holder was lying under the book. When he returned he shut off the current from the coil, disconnected the tube and placed it upon the rack, where he kept them. He then took the plate holder with several others and went out to spend the afternoon out of doors exposing several plates on wild flowers. Photography was his favorite hobby, and spring wild flowers his particular interest at that time.

"Returning late in the day, he developed the plates and found the shadow of the antique key on one of them. He wondered how this happened and questioned several of his students about it, but none could explain how it happened.

"Fogging of photographic plates which happened to be lying near energized vacuum tubes had occurred before in his laboratory, but to the scientific, inquiring mind of Röntgen this key shadow demanded immediate explanation. Remembering having placed the tube on the book, he replaced the tube as it was with a photographic plate beneath it, (as he remembered having found it)and energized the tube. Development of the plate showed the shadow as before. Soon afterwards he made a plate of his hand and at once began a thorough study of the phenomena. He realized at once that he had a new form of radiation and secluded himself so that little was seen of him for many months afterwards."

Röntgen apparently appreciated the great value that his discovery would be to the medical profession and on December 28, 1895, he presented his first paper on this subject entitled, "A New Form of Radiation" before the Wurzburg Physio-Medical Society.

Röntgen's address was greeted by prolonged applause. At the end of the lecture, the right hand of the Honorary President of the Society, Professor Rudolph Albert von Kölliker (a celebrated surgeon and anatomist) was extended to him, and he thanked the lecturer in the name of the Society for his address, stating that it was

unparalleled in the annals of the Society. The proposition to call the new rays Röntgen rays was unanimously adopted. Professor Von Kölliker opened the discussion and amplified Röntgen's suggestion of using the new rays for medical purposes. He said that the rich material of his clinic presented such a fine opportunity for the use of the new rays for the radiography of patients that he hoped Prof. Röntgen would cooperate with him in these experiments. At first thought it seemed to him that diseases of the bones and joints should be first investigated.

In closing Prof. Röntgen stated that for the penetration of the parts of the body that are much denser than the arm or leg, larger tubes than these would have to be constructed, and he was working on the problem. Which of the inner parts of the human body would be visible with these improved tubes could be only found out in time and after experiment. This he said would depend upon the degree of penetrability and the position of the organs in the body.

The chairman then closed this most important meeting by calling for three cheers for Röntgen and by thanking the essayist for having selected the Physio-Medical Society for the first presentation of his experiments.

On March 9, 1896, Röntgen made a further report before the same body and in 1897 he presented "On Further Observations of the Characteristics of the X-Rays" before the Royal Prussian Academy of Sciences in Berlin, but before this time the science of Roentgenology had acquired a sufficient start and hundreds of physicians and physicists throughout the civilized world were using the roentgen rays in diagnosis and treatment of human ailments.

And now, 35 years afterwards, how many of us fully realize how complete Röntgen's analysis was, how practically everything he said in that preliminary report has stood the test of thirty-five years and how little we have added in regard to the physical portion of Roentgenology to what he said in 1895. He discovered secondary radiation, proved that it was not reflected radiation, showed that these rays governed by and amenable to the same "inverse square law," as is light, and he even disclosed a defect in a metal casting and showed us how we would later be able to study crystalography. And *he accomplished all this without a focus tube.* Never was a preliminary report of any important discovery so complete and in effect so little changed or improved upon as this, and I have no hesitancy in saying that the name of Wilhelm Konrad Röntgen will never die.

Röntgen was decorated by Emperor William of Germany with the Order of the Crown of the German Empire. Ludwig, reigning Prince of Bavaria, bestowed upon him the Cross of one of the Bavarian Orders and a government decree made him Excellency. The University of Wurzburg conferred upon him the honorary degree of Doctor of Medicine. The University of Munich offered him a professorship. He was awarded the Barnard Medal by the National Academy of Science at Columbia University in New York City, and in 1901 received the Nobel Prize. His picture was placed in the Physical Institute, a tablet was unveiled and a boulevard in Wurzburg named in his honor. On the approach to the Pottsdam Bridge in Berlin stands a most striking bronze statue of Röntgen seated.

His discovery of x-rays stands out in bold relief as a lasting monument more durable than stone to his energy and painstaking research, and the world will long remember Wilhelm Konrad Röntgen.

As soon as the announcement of Röntgen's discovery reached this country, numerous American physicians and experimenters began a period of activity in their laboratories which was probably never paralleled in the history of man. Many of them worked continuously for several days and nights trying to produce x-rays, and so many of them were successful that at this time it is difficult, if not impossible, to name any one person as having made the first roentgenogram in the United States or in this State.

Probably the first systematic x-ray work done in America was that of Dr. W. J. Morton of New York City in 1896 which was closely followed by Dr. W. Harvey King, also of New York. Outside of New York, Dr. Heber Robarts of St. Louis, and later of Belleville, Illinois, was probably the first, and he was the first to show a bullet in a man's heart. In February, 1896, Dr. Harry P. Pratt, located a foreign body in the hand of a patient and began the use of x-rays in the treatment of pulmonary tuberculosis. Early in 1896 Dr. F. C. Harnisch, an opthamolo-

gist in Chicago, after securing a six-inch induction coil from The McIntosh Battery Company, and several tubes from Germany began a series of experiments with the x-rays. He induced a Mr. W. G. Boehm, a local glass blower, to make additional focus tubes for him, and enlisted Dr. Peter J. Latz, who had been a chemist and had just graduated from medical school (a rather ardent amateur photographer) to do the photographic work with him. The apparatus was first set up at the home of Dr. Harnisch and much damage was done to the rugs, carpets and furniture by the chemicals used, until Mrs. Harnisch laid down the law and insisted that the laboratory be moved.

Nearly all the plates were so much overexposed—in order that the bones could be well seen—that reduction had to be done, and so much ferri-cyanide had to be used in the reducing process, that Dr. Latz was poisoned by it, and, therefore, compelled to sever his connection with the laboratory.

On account of the limited means of Dr. Harnisch, it seemed for a time as though the venture was to fail for lack of funds. At this time, about the end of April, 1896, the laboratory was moved down into the business part of Chicago where the city current could be had (batteries being used to energize the coil up to this time), and in June, 1896, Dr. Otto L. Schmidt was induced to finance the plant, and a Mr. Wolfgang C. Fuchs, an electrician and expert amateur photographer, was placed in charge. The plant then became known as the Fuchs X-Ray Laboratory and it soon became well known and was well patronized. One of the first, if not the first, of all cases of foreign body in the stomach was shown and studied by Fuchs and a group of Chicago physicians. Myrtle Hohman, a six-year old girl, had swallowed a tin whistle, and her parents, after refusing to have the child operated on, changed physicians and calling Dr. Frederick Schaefer. It was suggested by the patient's mother that they try the new rays before operation. The child was taken to Fuchs' Laboratory. The tin whistle was seen in her esophagus and later shown in her stomach, after she had eaten a biscuit which she snatched from a little friend because of her hunger and in due time was passed, and is retained as a valued memento of the case by the patient. This case attracted considerable attention and received much newspaper publicity. Prints made from the plates are still in existence, but are considerably faded. I have reduced copies from them as well as newspaper write-up from the *Chicago Herald*. Incidentally, this patient is now my office nurse, and remembers much of the affair. Fuchs (or Prof. Fuchs as he became known) died after years of suffering from carcinoma induced by exposure to the x-rays and thus passed this pioneer Chicago roentgenologist.

The first hospital in America to equip for x-ray work was Hahnemann Hospital, Chicago, and Dr. Emil H. Grubbe was placed in charge. Later the Presbyterian Hospital in Chicago purchased equipment which was placed in the hands of Dr. Joseph F. Smith, who is now practicing medicine in Wausau, Wisconsin. Some considerable time later the Cook County Hospital was equipped for this purpose. The first medical school to establish a chair of roentgenology was Hahnemann of Chicago, Dr. Emil H. Grubbe being the first Professor of Roentgenology.

An amusing incident. During my first year in Chicago (1907), a highly intelligent negro clergyman applied to me to turn him white, by means of the x-rays. Naturally, I was somewhat surprised at the request, but he assured me that he had seen accounts several years before, that negroes could be turned white that way. My refusal to undertake the task seemed to upset and irritate him considerably, and at last he offered to pay me $5,000 if I would make him white.

I did not learn the source of this man's information until after the lapse of about twelve years, when reading through the files of some old newspapers, and making further inquiries, I found that at one of the early (1903-1904) meetings of the American Roentgen Ray Society, Dr. Diefenbach of New York City had stated that negroes, treated for lupus vulgaris sometimes showed white patches where they had been irradiated, and that this observation had been verified by Dr. Henry K. Pancoast of Philadelphia. The newspapers got hold of this item and the next day *The Philadelphia North American* published a story under a heavily titled caption that these two men could turn negroes white. The story was passed to the Associated Press and was pub-

lished all over this country, and probably in Europe.

That is undoubtedly how my colored friend received his impression about being bleached by the x-rays.

25 E. Washington St.

MY IMPRESSIONS FROM THE PRACTISE OF MEDICINE*

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ELMHURST, ILL.

It is not the intention of this paper to give you something that is new in the field of medicine, but to give you, in brief, a resumé of my impressions from the practise of medicine covering a period of twenty-five years, with fifteen months post-graduate work in this country and two visits to Europe. I have often been asked how I decided and why I chose the practise of medicine for my life work!

My father was a farmer. He lived on the farm where I was born until I attained the age of twelve. My parents had the habit of assigning to each of their children, certain work which they had to do between school hours and supper time. This work or chores, as they called it, was not much but they did this to impress their children with the idea that work and play went hand in hand. It became my duty to milk two cows before supper. This I never liked to do. I frequently offered to trade with the others without success. At an early age I made up my mind I would never be a farmer because of the milking.

I recall the time when the stork arrived in vacation time at our neighbor's who lived across the road. Every morning I would watch for the doctor as he came over the mud road, sitting beside his driver, in an old-fashioned buggy driven by two black horses. Soon I would see mother going across the road, at that time I did not know why. Since then, I learned she was the nurse in the case reporting progress and receiving further instructions from the physician. I was not tall enough to look over the fence, hence I looked between the boards watching as he was coming and going. I began to admire his vocation. I followed him in my mind to his home and I pictured him stepping out of his buggy and going into his home. My little mind figured that he had no chores to do and best of all he had no milking to do. The seed was now planted, and I decided to be a doctor. This thought never left me.

As my parents decided to quit farming and move to town, I decided to go to school realizing that certain education was necessary for this kind of work. As the years rolled by with college work, I was called by my parents into consultation and asked to explain to them my future intentions. When I informed them that I wanted to be a physician and nothing else, they objected and refused me further financial support. Fortunately after numerous consultations they changed their minds and permitted me to go. I started for Rush Medical College. After I had registered, purchased my books and rented a room, I made an effort to see Nicholas Senn, of whom I had read and heard of before. In due time I was in the front row in his clinic. With a throbbing heart I watched Professor Senn walk into the clinic. He was followed by an etherized patient, in a semi-sitting position about to be operated on for a goiter. After listening to a few preliminary remarks and watching him making the incision across the throat, I nearly fainted. I did not see all of the operation, as every look would make me more and more dizzy. I was glad when the opportunity came to go into the open air. This operation aroused my deepest sympathy and brought to my mind serious thoughts of quitting. I did not care to go back home so I decided I had better stay away from surgical clinics and attend the classes assigned to me.

The following summer our family physician, Dr. H. W. Bartells, offered to take me under his wing and asked me to spend my vacation with him. How proud I was to be with him; to drive his horses seemed an advancement. The time I spent with him was most valuable. He gave me encouragement and much good advice. Many of his suggestions I still remember and follow today.

After my graduation and fifteen months interneship in the Grant Hospital, I became a full-fledged M. D. I started in Bensenville in 1902 where a prospective field was then open. I felt more competent to practise medicine then, than I ever have since that time.

*Read before the Du Page County Medical Society, Wheaton, Ill., Sept. 18, 1930.

I was now the doctor in the buggy, the same as I saw fifteen years before. In looking back twenty-five years, I now see the many changes which have taken place in the practice of medicine. The old family physicians with their distinctive dress and manner have become extinct. That mysterious and supernatural knowledge with which he was supposed to be endowed counts no more since the final triumph of scientific medicine. The muddy, the rough and frozen roads, the top buggy with the dim kerosene lights have given way to cement roads and high powered automobiles. Nearly all the medical work had to be done in the home. The hospital, which the patients feared, were few and distant. Today the patient's fear is gone. He now seeks the hospital with all its modern equipment accessible to us all.

Today, because of the great advancement in the science of medicine, the practise of medicine has become more and more complicated. Today, because of the accessibility to hospitals equipped with x-ray laboratories and trained nurses, the physician is better equipped to make more accurate diagnosis and prescribe more intelligently than he could twenty-five years ago. Today, the physicians realize that the cause of ailments must be removed, without that treatments are unsuccessful. Today, the physician enjoys the confidence of the public more than he ever did, because of the better results of treatment. His income is better, he can live better and with few exceptions is considered a respected sober citizen, who is always found willing to serve suffering humanity. Indeed, the best time to practise medicine is now. As a business man he never made an enviable reputation, he is still an easy prey to unsound investments. He generally neglects to send his bills nor does he attempt to collect his fees, in a business-like way, hence he is seldom seen getting rich from his labors. The physician seldom takes a definite stand on important questions when asked for an opinion outside of medicine. His answers are usually evasive. To evade an opinion he is often seen walking away, because he is now too busy to talk. What does the physician do with his leisure hours? Where does he go? What is his idea of a good time? Does he study or does he indulge in outdoor sport? Does he produce something that is lasting for permanent benefit and enjoyment of others in the community? To avoid mental stagnation we must keep it active. To have a hobby outside of the regular work is a good thing. Minds can be cultivated in leisure hours and much can be accomplished. To gain an education is neither easy or rapid. Work hurts no one if you enjoy the work. The hardest working people live just as long as others and seem to be the happiest.

With past staff affiliations of three hospitals and two medical societies I have had ample opportunities to study different types of men. The happiest man is the one who cultivates his mind and entertains interesting thoughts. He is unselfish. He is the one with a big practise. He goes about his work in contentment, minds his own business and is always surrounded by worthwhile friends. He is usually seen in medical meetings from beginning to end and always found ready to give and receive the benefits of medical progress. A man is judged by his work and by his talk. The meanest things that I have ever heard said about doctors were said by doctors.

Ethics. There was a time when ethics was entirely superfluous, ethics which treats of moral motives, duties, conduct or character or what our conscience considers as our duty toward those with whom we associate, is better today than at any other time. A great deal of credit is due to the father of the DuPage County Medical Society, Dr. E. H. Oelke, for his efforts in organizing our society. It has done much to bring the doctors of our community into closer contact. Here I have seen many new acquaintances ripen into permanent friendship. I am free to confess that the friendships which I have formed in our meetings, I value very highly. Since then there has been a much better and a more friendly feeling between the medical men of this community. Not many years ago, doctors seldom got together, they seemed to fear one another. Consultations were few and far between. Today we see them mingle in medical societies, in hospitals, even with their families in social functions. Unfortunately a few of our members do not co-operate with the men in our midst. They should be helped, talked to and made more happy. I never refuse a patient consultation when he is so inclined. As far as possible I always call in a member of our society. I believe

the average intelligence of our members is equal to the average intelligence of the members of other societies. I know we have the necessary talents in our midst; why should we not give them the opportunity instead of calling outsiders who have no special interest in us? We should remember that all the money which goes to outsiders, whether for consultation, operations, x-ray or laboratory, is money lost for us. We should support our own men and our own institution. I believe we should spend more time and show more interest in matters pertaining to the business side of medicine and the effect of lay dictation on the medical profession.

I believe that the attending physician who recognizes the case early and brings the patient to the surgeon for early operation, for instance, an emergency abdomen, should be freely compensated for his skill and judgment. We cannot all be outstanding men in the different branches of medicine; the field is too large and the time is too short to acquire all the necessary information and equipment. We need specialists for some of our cases. To qualify as a specialist in any branch takes a lot of time and money. If the men who are engaged in specialized work would not get the support of the men in general practise, they might not deem it financially wise to qualify for this kind of work. To attempt specialized work, whether they be operations in the abdomen, or on the eye, ear, or work with the x-ray or radium, without the necessary qualifications, is not only dangerous to the patient but he is unfair with himself and to the medical profession. I have seen and heard of a number of instances where unprepared men attempted and became confused in an operation. In the midst of it they were compelled to sew up the incision, or they sent for and waited an hour or more for a matured man to come and finish the work, while holding the patient in an etherized condition in the operating room. We all know that every death or failure to cure brings up serious thoughts and has a depressing influence.

Internal medicine has made great strides in the last twenty years. Of the latest discoveries I may mention: 1. The prevention of typhoid fever. This does not need a specialist. Anyone in general practise can give these hypodermics of typhoid bacilli. 2. The development of the x-ray is another great advancement. Any man who is on the staff of a good hospital has an x-ray at his disposal. Many men have an x-ray machine of their own, who take and interpret pictures very well. 3. The prescribing of liver extract for the cure of pernicious anemia offers no difficulty to anyone. 4. Insulin for the treatment of diabetes can safely be put into the hands of the man in general practise.

If there was ever a time when a man should give the best he has, it is to the one who suffered and bled for him, it is the mother in the birth room. In my experience with 1000 obstetrical cases of which there were nine cases of twins, one case of triplets and six eclamptics, 9.2% were forceps deliveries, 18% had lacerations of one-half inch or more. I have never seen a painless labor. I believe that all efforts to make them so is hazardous. In confinement, it is up to the physician and the mother to get desired results. I have never administered twilight sleep, rectal anesthesia or sodium amytal. The patients who ask for them will most always reject them when the action and after effects are fully explained to them.

I never did a manual extraction of the placenta, because I feared a possible subsequent infection. I have waited for three days for spontaneous expulsion with good results. I never did an epesiotomy. In my experience and judgment, I have never seen a case where an epesiotomy was indicated. I have learned by experience to avoid meddlesome midwifery. With a little more time and patience, with a little more control over your patient and the administration of ether and hot applications over the vulva, at the end of labor many a tear or cut can be avoided. With this theory and practise in mind, I have no deaths of father or mother, no milk leg or abscessed breasts, none in bed longer than two weeks. We are living in an aseptic period. Obstetrical and post-operative wound infections have nearly been eliminated. I alone and with others have treated approximately 5000 patients in the operating room with a death rate of 2%.

In my thirteen years affiliation with the West Suburban Hospital, I have seen it grow from the size of the Elmhurst Hospital to its present capacity of 450 beds. During this time it has been a growing satisfaction to have an increased number of patients hospitalized each year for medical and surgical care. How much more sat-

isfaction there is to have most of your patients all in one hospital than it was to go from house to house and assume responsibility of both nurse and physician as in former days. In the hospital we have all the equipment, the nursing care, hourly records for present and future use.

My ambition was realized when the Elmhurst Hospital opened its doors little more than three years ago for the reception of patients of all creeds and all reputable physicians. For the future it is my ambition to see this institution grow many times its present size and be an outstanding institution not only in this community, but to Chicago as well, because of the character of the work done here by its able physicians and surgeons. We welcome and hope that some of our men will become as eminent in the profession by their experimental work as J. B. Murphy in the Mercy Hospital from his invention of the Murphy Button, or Banting for his discovery of Insulin and Emil Behring for his discovery of Diphtheria Antitoxin and other men, by their work.

In choosing one's life work, I always advise that every boy should follow his own inclination and choose his own vocation. I have learned that four things are necessary to success in life—ability, reliability, durability and action. I have always made a good living and enjoyed my work. If I had to do things over, I again would want to be a doctor. In dealing with the different classes of people I find that the people of German descent are the best payers.

I have learned to admire the Catholic mother for her devotion and attitude toward her family. I have learned to admire the man with the Masonic button for his fairness in dealing with other men. I have learned to fear the man who forgets the Golden Rule, who is always ready to find fault with the one whose reputation and standing he wishes to injure for his personal gain. It is this man with a poisonous tongue who is not honest with his patient or his colleague. If the highest type of men are not found in the medical profession, then where would you look for them? In dealing with your families be explicit and definite, they like it better and it is better for you.

In conclusion let me say: To attain the best results for our patients, for ourselves and for our profession, we must eliminate misunderstandings and unpleasant situations which doctors often bring upon themselves, by a little more thoughtfulness, a little more discretion, a little more brotherly love and a little more harmonious co-operation.

THROUGH THE WOMAN'S AUXILIARY, THE WOMAN'S CLUBS CAN BECOME MIGHTY FACTORS FOR THE DISTRIBUTION OF SCIENTIFIC INFORMATION AND FOR THE WITHHOLDING OF GARBLED, INACCURATE AND MISLEADING DOCTRINES*

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The woman has been the helpmate of man from immemorial times. Caesar tells us that among the Gaelic people the women often fought with their warrior husbands in the serried ranks of their tribes, and he gave us to understand that "the female was often deadlier than the male" in words of a later writer.

This position of service and coadjutor has been extremely grateful to man—so gratifying indeed that he is reluctant to accept the modern change which brings the ladies into immediate competition with his own activities and especially into participation in the rewards. The alteration of conditions has been slow, partly from man's innate unwillingness to yield any of his boasted superiority, but largely through the women's own acceptance of the Old Testament teachings which fortified the masculine attitude.

During the Victorian era, now happily past, about the only personal exploitation allowed the female sex was in the nature of "church sociables" where vivacious virgins and the "sedentary multiparas" of the district were urged to compete as public cooks for masculine favor and commendation.

The upgrowth and escape came principally through the Chatauqua Circles and Woman's Clubs which brought the members into steady and certain contact with the affairs of life.

In the work of their clubs the women learned to lay aside the emphasis on sex and to speak

*Address to the Woman's Auxiliary of the Chicago Medical Society, October 2, 1929.

directly eye to eye and brain to brain in true parliamentary fashion. They secured in this manner their intellectual independence just as in previous centuries they had painfully acquired the right and will to dispose of their affections. As a logical result, the women who had been so thoroughly educated, trained and developed in forensic fields instinctively sought mental equality and comradeship in marriage with professional men; and doctors' wives became everywhere conspicuous as leaders and speakers in the women's forums.

The men, too, meantime had passed through a severe apprenticeship, a long period of drastic training and polishing which was necessary before they rose out of their original sin and brutishness to a better understanding of their position in Nature. They acquired foresight as well as retrospection, judgment as well as emotions. In ancient times the hermit in his secluded cave was just as valuable to primitive society as Paul of Tarsus—"a citizen of no mean city." So the snail in his sanctuarial shell was as definite a factor in evolution as his free swimming brother, the nautilus.

But with the control of Nature's forces, the increase in personal comfort, and especially by the inauguration of the machine age with the marvelous expansion in human mind and spirit which accompanied its development, man as an individual lost much of his importance. Even the family has ceased to hold its primary significance, and groups organized on occupational lines are now almost the only recognized units of society.

The systematic combination of such forthright individualists as professional men is now generally accepted and these associations probably represent the highest example of the group idea.

Meanwhile the nonprofessional element has been somewhat awakened to the value of preventive medicine, and to the fact that doctors are something more than fakers and mystery men. To meet a growing demand for scientific knowledge of hygiene, physiology and the cure of disease our reputable journals, magazines and newspapers now publish an enormous amount of really useful and accurate information in their "Health Columns."

The health of the Nation is its greatest asset and all thoughtful people are interested in anything that pertains to physical well being. Unhappily this feeling is often commercialized by charlatans and by irregular and irresponsible institutions which prey upon the weak and credulous aspirants for better physical endowment.

In such a crisis the medical men and the women's clubs can be mutually helpful. Their aims and purposes are identical in this respect. Both stand for civic economy, civic righteousness, and social welfare. The women are organized locally and nationally; and the doctors also, into County, State and National Associations. What could be more expedient than the union of these bodies for the physical betterment and the mental advantage of Society. Intellectual men and women can be seers and prophets, they can be leaders of modern thought but they will secure results only through their compact and energetic organizations.

The Woman's Auxiliary is an entirely new phenomenon in the development of medicine. The movement is now in its second year but at times the members seem somewhat at a loss to know what method of attendance and what variety of nourishment is required for the babe which has been laid rather unexpectedly upon their doorstep—often they wonder if their formulas are correct.

The Woman's Auxiliary is the most logical and efficient medium for bringing about an affiliation of the medical societies and the Woman's Clubs for the accomplishment of those high ambitions in the development of society which are cherished by both organizations.

This is particularly true because the higher sensitiveness and the shrewd intuitions of the female nerve centers will often bring them more quickly to the sane conclusions and judgments which are attained long after by the pedestrian brain of man.

Furthermore the women of the Auxiliary are personally familiar—only too familiar at times—with the doctor's problems. They understand his anxieties, they sympathize with his tribulations, and they share his ambitions for the welfare of our civilization. They can furnish at all times valuable information as to what medical science has done and is doing for public health.

Through the Woman's Auxiliary, the Woman's Clubs can become mighty factors for the

distribution of scientific information and for the withholding of garbled, inaccurate and misleading doctrines. They can be of great service in shaping and developing social crusades in harmony with modern medical ideals.

The profession of medicine is as necessary to progress as education, but we cannot apply this knowledge to the best advantage of the people without their personal cooperation.

This cooperation can be secured through the dissemination of truth and through the confidence which our women have in the integrity of our professional motives.

Medical men are everywhere improving medical schools and hospitals, they are striving to reduce the cost of illness, and they should have the confidence and assistance of their wards. To get this confidence they must deserve it. To secure this cooperation the Woman's Auxiliary is most important.

The Woman's Auxiliary can be a most significant factor in this program. Through the Woman's Auxiliary the Clubs will be equipped to combat the insidious advances of charlatans and to act intelligently on questions that affect the public weal. They can arouse and direct public sentiment into channels of public benefit instead of into public waste, spoilsmanship and racketeering.

A fine example of the efficiency of woman's aid in such matters is furnished by the failure of the Sheppard-Towner-Newton Law. If the women had remained indifferent and inactive or blind to the iniquities of this measure, it is more than probable the whole splendid campaign of the ILLINOIS MEDICAL JOURNAL and other similar publications would have gone for naught. The law would have been re-enacted, and the evil blight perpetuated.

That this law was unnecessary, that it was a wholly gratuitous infringement of personal liberty, is shown by the results. In the registration area the maternal mortality in states acting under the Sheppard-Towner-Newton Law averaged 6.8% in 1921. In Illinois wherein the law was never operative the maternal mortality has dropped to 5.1%.

At the same time in the sixteen states where the law was accepted the infant mortality diminished only 10.6%, while in the five states where the law was not accepted this mortality diminished 13.9%. Certainly the opponents of the law have been amply justified.

In such a manner other measures can be analyzed, appreciated and effectively fought or upheld by the women as the good of the people demands.

Furthermore the women can be extraordinarily helpful in combating these influences which are tending toward commercialization of medicine. The dangers of socialized medicine and the disastrous consequences of state medicine can be called constantly to the attention of the public. This is largely a process of educating the general mind by continual reiteration. Education can be equally effective in other ways. The utilities of remedial agents can be emphasized and the importance of using natural remedies against disease as well as against starvation can be insisted upon. Sanitary principles can be enforced by precept and example.

Women as well as men for the most part are densely ignorant of human physiology and the causes of disease. The more ignorant the individual the easier it is of course to convince him of some cultist untruth. Some men are merely uninformed while others refuse to be enlightened. These latter accept the electric light but refuse to believe that modifications of that light can affect the human body. They can see the mould on bread but deny or refuse to believe that the same and similar organisms can exist in living tissue and produce putrification, inflammation and other forms of disorganization. If they could be convinced that bacteria live in the intestines normally and act beneficially by aiding digestion, it ought not to be hard for them to learn that the same bacteria moved by chance to other parts of the body, or introduced from without, could cause disease.

In consequence of this mental state such people fall easy victims to the wiles of faddists and the adroit manipulators of the numerous cults who do not hesitate to claim that "I have cured the disease but you came to me so late that the cause of the trouble cannot be removed," and so the patient dies as science had already predicted.

At all times the women can use their voices and their votes to support beneficial measures like vaccination and vivisection which harmonize with the tenets of modern scientific effort.

At the same time they can oppose by voice and

vote the cults and crusades by which the ignorant, the fanatic or weakly sentimental try to destroy the advance of reason.

The Woman's Auxiliary can easily be the decisive factor in such contests as the Sheppard-Towner bill has proven. The woman has here an insuperable advantage for she works among individuals, families and in selected groups, where the doctor himself would be an alien and an outlaw.

The women of Illinois are fully awake to these problems and well equipped to become leaders in a movement which is destined within a few years to evoke discussion all over the continent.

It is evident, I believe, that the Woman's Auxiliary need have no fears that it will lack for occupation, and it is equally evident that such services will be deeply appreciated by the medical beneficiaries. The doctors are an independent, individualistic lot; they like to fight their own fights, and win their own battles; but they welcome assistance from the splendid women who follow their banner and fight by their sides for the right.

In times of peace the armies of the world may be skeletonized to a mere tenth of their full complement of men, but the regiments are kept functioning like perfect machines. So the Woman's Auxiliary may find periods of idleness and discouragement where no foe is in sight, and no purpose that seems worthy of effort, but ignorance is always at our elbows, a meet subject for instruction and at the barest hint of overt attack the splendid organization of the women can fill their ranks and spring into action with the fiery ardor, intensity of purpose and high capacity which has distinguished them in all their previous conflicts.

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LEGISLATIVE OBSTACLES IN OBTAINING ADEQUATE MEDICAL LAWS*

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In a small Quaker college located somewhere in the United States there is a student association which controls the athletic policies and activities of the institution. Conventional collegiate fraternities are prohibited from the campus but there is a secret society which calls itself the "Rabbit Foot Club." Out of a student body of more than 300, only 20, or less than 7 per cent, can be members at any one time. Members who graduate, however, can and do continue to exercise an influence over the club.

This Rabbit Foot Club has dominated the athletic association of the college for six generations and it will probably continue to do so indefinitely. For every student office that relates to athletics that club nominates a candidate, works for him and votes solidly for his election. For every proposed policy or activity subject to student control that club chooses a definite plan and stands behind it to a man.

Members of that club are a homogeneous group. Additions are admitted only after the most deliberate and careful consideration. Each new member must possess qualities and attributes which harmonize and fit in with those of the group.

The athletic association is made up of members from every class, every literary society and every other student organization on the campus. Candidates for office are often brought forward by genuine well wishers and also by reformers, malcontents and others, but most of them fall by the wayside except those selected by the Rabbit Foot Club. New policies are advanced, changes of the by-laws are recommended and reforms promoted, but nearly always everything not sponsored by the club dies in committee or gets lost in the election. A very few members of that student body usually control matters because they know exactly what they want and go after it with a united front.

In the world of affairs the Rabbit Foot Club at that Quaker college would be a lobby organization and the athletic association would be a state general assembly. The situation in that student body illustrates how a small minority of the population, bound together by a common purpose and driven forward in unified strength by the overpowering motive of self profit, is able to get statutes written upon the books when spokesmen for a far larger and infinitely more rational group often fail miserably to impress the law-makers. Conflict of opinion and unsteady support of an adopted policy is mortal to

*Delivered at Annual Conference, Council on Medical Education & Hospitals, at Palmer House, Chicago, Ill., Feb. 19, 1930.

the legislative ambitions of any organization which champions so controversial a subject as that of the healing art.

The very nature of our form of government makes it impossible for significant proposed laws to find their way upon the statute books without powerful support. Take an average general assembly in Illinois, for example. Every two years various interests will seek to have enacted into law some 2,000 or 3,000 different measures. No less than 1,500 of these will be reduced to the form of bills and presented to the assembly. About 500 will become laws. Manifestly with an average mortality rate of 66 per 100 bills introduced, there is small chance of survival for those which deal with such controversial subjects as the practice of medicine unless they show evidence of strong organized support. They die of inanition.

There is a great diversity of opinion about medical matters among the profession and even more among the laity. Take the question of alcohol. Physicians of national repute have publicly expressed opinions favorable to the judicious use of that intoxicant even aside from what might be called medical purposes. Others no less prominent violently oppose even the medicinal prescribing of alcohol. Again, outstanding members of the medical profession strongly favored the Sheppard-Towner Infancy and Maternity Act although the American Medical Association vigorously opposed it and ultimately succeeded in defeating its continuity, at least for the time being.

On the other side of the picture is that heterogeneous group known as the general assembly. Doubtless the legislature of Illinois provides a fair sample of what these bodies are like from the standpoint of education and experience. Out of 204 members of a recent general assembly there were 63 lawyers, 24 farmers, 18 real estate dealers, 10 merchants, 8 insurance agents, 7 bankers, 6 newspaper editors, 6 teachers, 6 clerks, 6 housewives, 5 professional politicians, 4 contractors, 4 doctors, 3 manufacturers, 2 grain dealers, 2 oil dealers, 2 grocers, 2 stock raisers, 2 laborers, 2 jewelers, 2 salesmen and 2 undertakers. There was 1 business man, 1 machinist, 1 coal miner, 1 engineer, 1 linotype operator, 1 hotel manager, 1 painter, 1 druggist, 1 teamster and 1 cigar maker. The others were a non-descript lot who had no trade or profession worthy of recording.

Furthermore, less than one-half of these assemblymen had more than a common school education. Doubtless the great majority of the membership were individuals of unusual resourcefulness in their communities but only 83 had ever matriculated at a college or university, 16 more had been in high school while 105 had never gone beyond the common schools in pursuit of a conventional education.

Out of the group 9 were born in foreign countries while a larger number were removed from foreign birth by only a single generation. In religious faith the diversity was no less great than in occupation.

In managing their health affairs a great many families resort to every kind of makeshift and subterfuge before calling upon a physician to provide the necessary service.

The high death rate from diphtheria or appendicitis indicates a tendency to use the doctor as an aid of last resort. In Illinois a study of the records shows that a doctor was not called until the third or later day after onset in over 40% of the reported cases of diphtheria. Thus the favorable time for giving antitoxin had already passed. Likewise, annually, appendicitis costs the lives of more than 1,200 individuals in Illinois largely because in most cases someone involved has delayed resorting to the proper treatment. These are but two of many illustrations of long delayed use of medical skill in connection with serious physical ailment.

The foregoing analysis shows that a state general assembly is likely to be of the common people. It suggests likewise that the great mass of common people are apt to utilize the medical profession after all other sources of alleged relief have been exhausted. Is it to be supposed that membership in the general assembly will so transform the nature, habits and beliefs of individuals that the legislature as a body will forthwith of its own volition or at the suggestion of some enterprising citizen enact laws that will repose in the orthodox medical profession the sole and exclusive responsibility of ministering to the sick and protecting the health of the well?

State legislators come from small political units. It is a very common thing to hear that the constituents of representative Doe are mostly

Christian Scientists, that Senator Goodspeed has the support of the American Legion, that this one was elected on a dry plank and that one on a wet. Labor and dirt farmers send candidates to the Capitol but seldom does one hear of a man being elected through support attributed chiefly to the medical profession. There is only one doctor per 700 citizens and these are naturally divided in their political and frequently in their medical opinion. Thus the total number of medical voters in an average political unit is very small but if the physicians, no matter how few, will co-operate—their influence has and will continue to assert itself when the question of health is an issue.

Politicians are well aware of this situation. Politicians have a sensitive ear for any wavelength that carries the joyful music of votes. They sometimes tune in on independent stations but it is usually for entertainment only, when the broadcaster is known to control a paucity of votes.

Again, medical education is ultra conservative. Individuals are taught to shun advertising and publicity as they would a bad name. The patient must inquire into the merits and ability of a doctor and search out his office to obtain what the physician has to sell. This situation is contrary to almost every other phase of modern life. Even the churches have united in a vigorous advertising program. Every industrial and commercial enterprise teaches its personnel that the "go getter" is the fellow who wins. Every cult and ism schools its pupils in the fine art of advertising upon which their very livelihood depends.

Thus it appears that about 99½ per cent of the population get what they acquire by going after it with blasting horns, shouting from the housetops to announce the virtues of their wares. The legislators understand that method of doing things. When the public is a bit slow in making a "drive" for what it wants or of what politicians decide is good for it, the politician goes out and organizes a demonstration to prove to the world that there is a demand for what he wishes to do. I have known a Governor to direct the organization of one booster club after another which bore down upon the Capitol in specially chartered trains with banners flying and bands ablast to wait upon the Governor in order to persuade him to build a hard road where he wished to build it.

That situation creates a very large obstacle in the way of securing adequate medical legislation. As a general rule doctors are individualists and ultra conservative at that. It took over 50 years for the medical profession in Illinois to get the first permanent medical practice act upon the statute books of that state although numerous attempts to that end were made during the intervening half century. Even in the Territorial days of 1817 a law creating a medical society which should be its own judge and jury and providing for the registration of vital statistics was enacted but its life was brief. Two years later, in 1819, another somewhat similar law found birth but likewise perished in infancy and the same fate overtook a third law which was passed in 1825. Subsequent attempts never succeeded in materializing into even a temporary statute until 1877 when upon one of those rare occasions the state medical society got solidly behind a program and brought it successfully through the general assembly. That law created a state board of health which kept alive the interest in the medical law from that time forward.

Appreciating these difficulties and profiting by the history of medical legislation in Illinois the state medical society there has manifested an unusual vigor and aptitude in legislative matters. Due largely to a handful of deeply interested leaders a very definite legislative program has been planned and the society has been united in its support. As a result Illinois is now one of the very few states which maintains a single board to supervise the licensure of practitioners. In 30 other states and the District of Columbia there are separate examining boards for chiropractors and other cults. The single board plan makes possible the maintenance of the highest possible standards under any existing legislative requirements while the multiple board system tends to lower the standards under the most exacting legal specifications.

It is not surprising that the Legislatures in the several states find themselves in a dilemma when attempting to arrive at the proper solution of this very perplexing problem, when it is quite obvious that, without the proper advice, it would be impossible for them to create a medical law

which would be the best safeguard for the citizens of the State.

We observe that a considerable number of the States are adopting the so-called "basic science" law, which we believe is fundamentally wrong. But we do see the necessity for such measures in those States which, through their own error, have allowed a multiplicity of conflicting laws to be enacted, with the necessary number of separate boards to administer them. The "basic science" law is so adopted as a means to an end, for it is not debatable that the licensing of any profession should be supervised by others than members of that profession. To think that the "basic science" law which is supervised, and the examination given, by laymen, solves the problem, is as unreasonable as to expect the legal profession to permit a committee of architects or engineers to examine lawyers; and yet, there are many physicians who, without carefully studying the so-called "basic science" law, subscribe to its efficacy. This again is another legislative obstacle in the many states where there is a controversy always existing between the cultists and the regular school. There are quite a few well thinking members of the Illinois General Assembly, who believe that such a law should be enacted in that State.

We believe that the average member of the legislature is earnestly endeavoring to give support to the enactment of the proper and necessary laws, but undoubtedly propaganda from any well organized group will have its influence. The Anti-Vivisectionists are extremely active throughout the United States at this time. They come into the legislative halls with their sympathetic half-truths, and paint a picture which is most difficult to correct after a false impression has once been formed in the minds of the legislators.

It is our belief that the blame should not be laid at the door of the legislator in the majority of cases, but is distinctly a responsibility of the medical profession, which through apathy has permitted a condition to be created which tends toward the lowering of educational requirements regarding those who are seeking the privilege of treating human ailments. A restricted medical practice act which has to deal with the lower educational requirements of the cultists is not the ideal, but is far superior to a dual act and separate examining boards. Physicians, even in their own organization, at times fail to take cognizance of the fact that the legislature is a highly impressionable body, and despite the fact that the best safeguard for the people would be a single standard which all who seek the privilege of treating the sick should follow, the attitude of organized medicine is frequently misunderstood in legislative bodies, due partially at least to the unwillingness of the physician to debate the good or bad of any suggested drugless therapy; and his unwillingness to impartially discuss the situation with the lawmaker, which tends to create a doubt in the legislator's mind as to the physician's contention. And, of course, the cult exploiter takes advantage of a situation of this kind to his profit. It is a well known fact that a considerable number of intelligent people, including legislators, do at times seek the services of the cultists for minor ailments; and the physician does not show the tolerance nor make the effort to explain to his lawmaker patient the unfounded claims of the drugless healer, but all too frequently speaks lightly or in a vitriolic way regarding the shortcomings of the cultists. This is contrary to the manner a banker speaks to the physician after his ascertaining that a physician's stock investment was unwisely placed with a resultant loss. The banker is tolerant and willing to advise the physician and show him how to avoid the pitfall; but the reverse is not always true when the banker makes an error in placing his faith in some patent nostrum or is enticed into the hands of an incompetent drugless healer. Our observations would lead us to believe, therefore, that the apathy of the medical profession is largely responsible for the many incompetent laws, and that many physicians do not acquaint themseles with the very law under which they themselves are permitted to practice the healing art.

Probably the greatest success in legislative matters that the cultists have had is the "personal liberty" argument. Since it frequently goes unchallenged by the medical man it has borne fruit in the legislative halls for the cultists, and Supreme Court decisions have even indicated that there is some merit to their claims upon this basis. Mr. Harry Eugene Kelly, of the Chicago bar, who wrote the present Illinois medical law, although unfortunately a few sec-

tions were changed by the legislature, read a most excellent paper before this association several years ago. And of the "personal liberty" element which is played up so successfully by the cultists, he says in part:

"The state should not seek, and, so far as I know, never has sought in any way, to limit a person in his choice of a physician from practitioners legally determined by it to be familiar with diseases, competent to make scientific diagnosis on which to base treatment, and informed generally on the various curative agents. The state should see that the public shall not be imposed upon by persons who lay claim to knowledge of diseases and the laws of health which they do not possess. It should prevent the perpetration of this kind of dangerous fraud which costs the public not only its money but inflicts on men, women and children sorrow, pain and death, and which spreads disease among the people."

Further he says:

"The first thing to do in every state is to procure an act of the legislature that will reflect wisdom and justice. The endeavors of all persons who are interested in progress along these lines should be directed toward inducing legislatures to understand the fundamental principles of the subject-matter involved, and to pass the laws that recognize those principles and give public officers, including the courts, power to enforce decency and proficiency in the profession of healing the sick. Such regulation must be done through the state governments; for the United States government has substantially no original control over this occupation."

There is still another obstacle in the way of securing adequate medical legislation. It is the very modernness of the present standards and scientific requirements of a well qualified practitioner. The medical profession travels in the van of sociological betterment. The politician may trail ten or fifteen years behind public opinion. When a popular attitude or custom finds expression upon the statute books it probably has already become conventional practice among a very large block of the population. In seeking medical legislation the organized profession looks into the future and attempts to build solidly. Lawmakers examine the present and feel the popular pulse for its reaction to any proposed change. Thus the medical profession finds its very efficiency and improvement an impediment in bringing about the legal safeguards that would result in the elimination of widespread abuse in the field of the healing art.

The success with which the Illinois Medical Society has carried out its legislative program in recent years, causing the defeat of several hundred bills which it deemed obnoxious, and the enactment of a fairly satisfactory medical practice act in 1923, suggests that a well organized legislative program with sufficient resources to keep the profession at large informed and active in behalf of that program is one means of meeting obstacles under present conditions. Ultimate solution depends upon general education of the public along medical lines. This can be facilitated in no better way than for medical organizations to confer with public health agencies and work together in close harmony of purpose and plan. With a state health department and a state medical society going to the legislature with divergent programs is an invitation for defeat to any comprehensive medical legal code. Long ago Abraham Lincoln immortalized the Biblical admonition that a house divided against itself cannot stand and today no other expression can set forth more fully the reasons why legislators have not listened more attentively to the suggestions and advice of the medical profession.

THE NURSING PROBLEM

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At the last annual meeting of the Illinois State Medical Society, the House of Delegates unanimously adopted the following Resolution:

1. WHEREAS, There is a widespread opinion that the theoretical training for nurses is being over-emphasized at the expense of practical training, thereby increasing the difficulty of rendering efficient nursing service to the general hospital patient.

Therefore Be It Resolved, That the House of Delegates of the Illinois State Medical Society request the Illinois State Board of Registration and Education to so modify its requirements of nursing education as to enable the general hos-

pital training schools for nurses to devote more time to the practical training of nurses, thereby insuring more adequate nursing care for the general hospital patient who is financially unable to provide himself with special nursing care.

The adoption of this Resolution puts the medical profession of the state of Illinois definitely on record and makes it obligatory upon the members and officers of the society to undertake a serious study of the nursing situation and to make definite suggestions to the proper authorities for the correction of the faults complained of.

On May 12, 1920, the Chicago Medical Society devoted its meeting to a "symposium on the Nursing Problem." The proceedings of this meeting were published in full in the October, 1920, number of the ILLINOIS MEDICAL JOURNAL. (Pages 357-369.) To the present writer it would seem that an abstract of the salient points of these proceedings which are still applicable would add greatly in clearing up the problem at this time. As several of the addresses dealt with problems that are no longer controversial, the following is an abstract of the addresses by Drs. J. V. Fowler, Chas. E. Humiston, Edward H. Ochsner and M. L. Harris.

"The settlement of this question of nursing will devolve largely upon the medical profession. The nurse is an adjunct to the medical man in the treatment of diseases, and she is now becoming a necessary and almost indispensable adjunct, but the physician of all men has the best understanding of the situation.

"A protest was filed on February 24 of this year with the Director of Registration and Education by Dr. M. L. Harris, representing the Illinois Hospital Association, the Illinois State Medical Society, the Chicago Medical Society, and the City Health Department. The specific grounds of protest were that the Department of Registration and Education was illegally establishing rules for hospitals and training schools and claiming that it had the law for so doing; that the Department was ignoring all officers and directors of hospitals in correspondence with the training school, and was naming qualifications, number of instructors and also the number of patients which a hospital must have in order to be on the accredited list: likewise fixing the requirements for admission to training schools and establishing a curriculum for training schools.

"The Attorney-General's ruling is an interpretation of law in regard to these complaints made through Dr. Harris by these different organizations; and he holds that complaints were well founded and should be respected, with the exception of one: The Department might carry on correspondence with the head of the training school if it wished.

"Nowhere in the Act of 1919 is the Department required or authorized to make or adopt rules establishing a standard by which schools for nurses or schools for preliminary education are to be approved or disapproved.

"The qualifications of the instructors, the number of graduate nurses, whether they be registered or not in Illinois, the superintendent of the training school, whether she shall be registered or not, do not seem to be stated in the law. The Department is not clothed with the authority to inquire into these things. Inquiry into the efficiency has to be made by finding out what sort of fruit the tree yields. In passing on the exercise of best judgment the recommendations of the Committee of Nurses and their judgment have not coincided with many others. The rules and regulations which they have applied to hospitals have been considered oppressive, ill-timed, ill-advised, unwarranted and arbitrary. The ruling of the Attorney-General on that point is worth noting, in view of the fact that the rules and the power to make them under the present law were left out inadvertently. The Attorney-General says that he takes it that the legislators had in mind leaving this out.

"The art of alleviating human suffering is not, of course, limited to any one group of people, but the foremost group is essentially the physicians. In any business or enterprise where cooperation is necessary, it is essential to have a head in command; and the assistants and helpers must take orders, or there is no coordination. The trouble with the law of 1913 and the present law is this, that it requires subordinates and assistants—in other words, nurses—to act independently and in a superior manner, exercising authority over their employer without restraint in certain lines. A proper and final solution, as I estimate the matter, will be when the education and training of nurses is entrusted to the

same hands that administer the Medical Practice Act.

"The most important medical problem before the profession and before the public is unquestionably the problem of nursing. The successful practice of medicine and surgery today is so dependent upon efficient nursing that anything which impairs the latter must necessarily seriously affect the former.

"In discussing this problem we must ever keep in mind that there are two fundamental considerations. First, the welfare of the patients, and, second, the interests of the nursing profession. I firmly believe that the medical fraternity will favor any plan of adjustment which secures the best possible service for their patients and guarantees favorable working conditions and remuneration to the nursing profession, as in the long run patients can be served best only if the nurses are treated fairly and physicians are served best if their patients get proper nursing care.

"What the public has a right to expect can be stated in one sentence, namely, it has a right to expect efficient nursing services, at reasonable cost, and in sufficient quantity to meet ordinary needs.

"Twenty years ago the nursing situation was about as well adjusted for the needs of the times as it possibly could be. That portion of the public which had awakened to the desirability of expert nursing service was able to get it at a reasonable cost. Up-to-date physicians who knew its value to their patients and thus to themselves could always get good trained nurses without much difficulty; nurses had plenty of work at adequate pay. Then came the three and three and a half year training school curriculum craze from the effete East, and while this is only one of the factors which has caused the trouble it is certainly one of the major ones.

"Foreseeing even then the havoc that the universal adoption of this lengthened course would sooner or later bring in its wake, I took the trouble of calling attention to this matter to three of the most prominent nursing superintendents of that time. In fact, I had a long session with each of them, but all of my arguments were of no avail because they were determined to put the three-year course into practice and as a partial result of this we have today many splendidly trained nurses suitable for hospital positions and welfare work, a large army of utterly incompetent women calling themselves nurses and inflicting themselves upon an unsuspecting public and a long suffering medical profession, a considerable number of women who missed the opportunity of a nurse's training because they were unwilling to devote three years to it, and a woefully inadequate number of suitably trained women for home nursing.

"The proposition which I urged upon these training school superintendents was to retain the two year course and give one year of postgraduate training to such young women as proved themselves especially qualified by natural endowment and education. While this would unquestionably have reduced somewhat the number of highly specialized trained nurses, it would surely have greatly increased the number of those who were especially trained for family and bedside nursing because a very large number of suitable young women would have taken the two-year course who were unwilling to take a three-year course. A properly conducted two-year course will give a bright young woman all the training that she needs for bedside and private duty work. In fact, I am quite thoroughly convinced that the services rendered by the two-years' trained nurse in private families average higher than that rendered by the three-years' trained nurse, for the simple reason that the three-years' trained nurse has only too often gotten interested in other things than bedside nursing. In addition, the training schools have lost a good many applicants who, in the past, took the training simply for the purpose of better preparing themselves for wifehood and motherhood. Some of the most earnest, hard-working nurses whom I have ever known have been young women who were engaged to be married before entering training and who took the training in preference to a college course because they felt it would prepare them better for their new duties. Such a young wife and mother in a small town or a rural community is a valuable asset and the universal adoption of the three-year course has done any amount of mischief along this line alone. The plan which I proposed at that time has every advantage of the present system and none of its disadvantages and it is one which could and should be adopted by every training

school in the State to the adantage of the training school, the nurses and the public.

"While criticism is often necessary, non-constructive criticism alone never accomplishes anything. For this reason I wish to here resubmit the program which I urged eighteen years ago, because I believe it would be as beneficial now as it would have been then, had it been adopted. At this point it would seem desirable to state briefly what a training school should strive to accomplish. It should train its pupil nurses, first, to become efficient private duty nurses; second, for that role in life which, after all, the great majority of women sooner or later assume; and finally, in addition, those who desire it and are especially adapted to become proficient in the nursing specialties should be given an opportunity to thoroughly prepare themselves in these specialties. I make this statement at this time because it has seemed to me that in recent years many of the training school superintendents as well as the Department of Registration and Education have taken a narrow view of the nurse's training and have considered almost exclusively only the interests of the professional nurse and by so doing have robbed the training school course of much of its usefulness to society. To make professional nurses is an important function of the training school, but to give a large number of women who do not want to make a profession of their training an opportunity to improve themselves and make better citizens is, if anything, even more important.

"One of the most important requisites for good nurses is suitable pupils in the training school and in order to get the right kind of pupils certain requirements must be established and maintained.

"In order that the pupil nurse might fulfill her part of the bargain I proposed that:

(a) She should be of good moral character.

(b) Sufficiently strong and in good physical health.

(c) Suitable temperament and of sufficiently intellectual and spiritual capacity.

(d) She should be at least twenty-one years of age.

(e) Have satisfactory educational qualifications, namely, graduate of a grammar school or its equivalent.

(f) Have had one year of practical experience in some useful character forming and judgment developing occupation.

"In order that the training school might creditably fulfill its share of the bargain I proposed that it should provide:

(a) Good food.

(b) Hygienic living quarters.

(c) Suitable hours for work, study, rest and recreation.

(d) Adequate theoretical instruction.

(e) A two-years' course for all applicants with proper variation of work.

(f) A third-year post-graduate course for such nurses as desired this extra year and who showed special adaptability in any of the nursing specialties.

"With most of the above proposals practically everyone will agree, but with reference to some there may be considerable difference of opinion. I am thoroughly convinced that no young woman should enter a training school before the age of twenty-one. Nursing is serious business and most persons below the above age are not capable to take the serious responsibilities which are so often unexpectedly thrust upon a nurse. I have seen some very unfortunate results in a number of young women who entered upon the work before they were physically, intellectually or morally mature.

"There has been a strong tendency in many quarters to make the educational requirements for admission to training schools too high, I believe. I think a reasonable requirement is graduation from grammar school or its equivalent. To me some practical experience in life, coupled with real work, seems a much more important qualification than mere book learning. I would a great deal rather accept twenty probationers with a grammar school education who subsequently had spent three or four years at reasonably hard, responsible, character-forming and judgment-developing work, such as teaching, bookkeeping, business, etc., than to accept twenty young women who have dilly-dallied through high school, girls' finishing school, or even college with just a passing mark, who have never learned how to really work, who could not satisfactorily sweep a room, and who have never had a particle of responsibility. The first twenty would learn much more and make very much more useful family nurses than the second

twenty. Some of the very best nurses I ever knew were self-educated young women with less than a grammar school education, who had worked hard to make a livelihood and acquire the little book learning they had. I do not say this to belittle the value of a college training for there is no one who values college education more than I do, but simply to emphasize the fact that there are other things besides mere book learning that make for efficiency in nursing.

"There is a strong tendency among training school superintendents, the longer they stay in the work to magnify the importance of theoretical instruction and nursing fads, and what is known as paper work in the army, and to relatively at least undervalue and belittle the importance of everyday practical work, a tendency which has to be combated constantly by the physicians and surgeons whose first interest is the welfare of the patient and whose second interest is the real true best interest of the nurses in training. The danger of falling into this serious error should be recognized and constantly combated by these superintendents themselves. Unfortunately, this fault has been rather encouraged than discouraged by the Department of Registration and Education. Only recently I made inquiry at one of the best training schools in the city and found that the senior nurses were getting six lectures a week. This is out of all proportion of what they really need and if the lecturers were more careful in properly preparing their lectures and giving the nurses what they really need, three lectures or even two a week would be better than six. I found in one of the training schools in this city that the lecturer on surgery devoted the greater part of an hour to a differential diagnosis between gall stones and appendicitis and the indications for operation while another devoted considerable time to a differential diagnosis between carcinoma and sarcoma. Such lectures I consider only a waste of time but worse than a waste of time from the standpoint of a nurse's training because they have a tendency to make a nurse less efficient. One of the important functions of a nurse is to observe symptoms accurately and to so record or report them. If she has preconceived notions about diagnosis her report is more likely to be colored and distorted and hence incorrect than if she is simply taught to carefully observe and accurately report what transpires during the interval between the surgeon's visits.

"Some will say that all these studies are interesting and furnish mental training; granted, but in that case they had better study ancient languages, the nebular hypothesis and the binominal theorem, the study of which surely furnishes a greater amount of mental training without impairing the usefulness of the nurse. No, nursing is an intensely interesting and practical occupation in which there is much of real importance to learn and all non-essentials should be most carefully and rigidly excluded. The medical lecturers and the nurse teachers should constantly ask themselves the question, 'Is this essential? Will this enable the pupil to become a better and more efficient nurse?' If they would all do this, fewer lectures would suffice and much valuable time and energy could be saved, but before this can be done the Department of Registration and Education will have to assume a little different attitude. Today the training school teachers and lecturers have to constantly ask themselves the question, "Will our nurses be able to pass the examination?" Only recently I remonstrated with a medical friend who was lecturing to nurses about the kind of information he was imparting to them. He said we have to give these things to them or they will not be able to pass the board, then went on to say that recently one of the questions asked was, "Describe the fetal circulation." Does anyone with a particle of sense believe that a knowledge of the circulation of the unborn babe is essential to good nursing or that such knowledge makes a nurse more efficient. In my humble opinion such questions are nothing short of stupid and an examiner who asks such questions should be instantly dismissed.

"In this connection, permit me to call attention to a paragraph in Bulletin No. 4 of the Department of Registration and Education in force September 1, 1919, which is found on page 16 and which reads in part: "Instruction in class and lecture with three hundred and twenty-four hours as the minimum total for the two years' course." This is not only an excessive number of hours of theoretical work, but it is clearly not in conformity with the spirit of the revised nursing law passed by the Fifty-first General Assembly, for, as I understand it, the number of

hours of theoretical instruction now required of the two-year student is practically the same as the number of hours previously required in the three-year course. Administrative officers should not only obey the letter but also the spirit of the law. If they cannot conscientiously do both there is only one honorable alternative and that is to resign.

"An earnest, bright, industrious young woman with the proper qualifications taking a two-year course, as outlined above, will, at the end of two years, have become an efficient nurse for general duty. If she wishes to follow private nursing as her special calling to compel her to take another year's training is a sheer waste of time. If, during her two years' training, she has shown special aptitude in any one of the other nursing specialties, such as administrative work, obstetrics, children or surgical work, she should be encouraged to take a post-graduate year, during which time she should be given charge of the floor or department for which she is especially fitted with proper instruction along the line of her specialty and given reasonable remuneration.

"In conclusion, permit me to urge upon the training schools of this state, first, that each school establish an intensely practical intensive course of two years in which only the essentials of nursing be taught and in which the pupil nurses be not required to render menial service or waste their time on non-essentials and fads. Second, have only those schools with ample means and a large variety of medical and surgical patients under their care give a post-graduate course of one year to such graduate nurses as show special qualifications and desire special training in the nursing specialties.

"If the Department of Registration and Education would sanction the plan above outlined and the training schools of this State would adopt it, I feel confident that the shortage of training school applicants, so generally complained of, would soon in large measure be overcome and as a result a much larger number of nurses suitable for family nursing would soon be available.

"To my mind the trouble with the nursing situation began with the passage of the first registration act for nurses. Previous to that time we had an abundance of very competent nurses to wait on the sick under the advice and instruction of the physician. From the time of the registration of nurses the situation has been changing in this direction that the nurses who wait on the sick have been constantly decreasing in number while the women who advise what to do for the sick have been constantly increasing in number until today the great majority of them are women who are advising what to do for the sick, so that we have few left to wait on them. This situation culminated last year when the nurses had a bill introduced in our legislature which made it unlawful for any person to wait on the sick except a registered nurse. It was time then for somebody to rise up and object.

"It is rather unfortunate, but it is nevertheless true, that there is just about as much fad and fashion in the modern professions as there is in women's dress, and because a number of highbrow ladies in the east who were supervisors of nursing and not nurses themselves, favored this particular fad that the three-year course became fashionable. When the fashion struck Chicago it was just as imperative upon the highbrow nurses in Chicago to demand a three-year course in Chicago as it was for other ladies to wear furs in July and half dress in winter. That is why we have the three-year course in Chicago today. It was fashionable to adopt the three-year course and it had to be adopted.

"I believe further that the time is ripe for the medical profession to go on record through their official societies—the Chicago Medical Society and the Illinois State Medical Society—and say that a two-year course is the proper thing. Then two years will become fashionable and most of the hospitals will adopt it. Fads and faddists and extremists have had their day, and it is time for an awakening and for the sane, sensible members of the profession to assert themselves."

It is my firm belief that if the hospitals and training schools and the Department of Registration and Education had adopted the above suggestions made a little over ten years ago, the hospitals of the state would be in very much better financial condition than they are, the private duty nurses would be better off and that portion of the general public which is unable to have day and night specials would be getting better nursing care than they are getting now.

That the Department of Registration and Education has not followed the suggestions made

above but to the contrary has made conditions even worse than they were ten years ago is best illustrated by the type of questions they are asking in their examinations for nurses, and by the requirements they are imposing upon the training schools.

I procured a list of questions of a recent examination, had copies made and submitted them to six busy practitioners of medicine of this state. Each one of the men to whom these questions was submitted has had over twenty years' practical experience; two of them are busy general practitioners, one of them with a large obstetrical practice and the others are specialists in various lines—all are men with large practice. I asked each one of them to mark the questions on the following basis:

Mark (a) questions which are of value in determining whether a nurse is properly qualified for general bedside nursing, usually spoken of as private duty nursing.

Mark (b) questions of doubtful value in determining the above.

Mark (c) questions of no value in determining the above.

The six medical men who examined the questions evaluated them as follows:

A—69%
B—18%
C—13%

In looking over the questions myself it seems to me that if anything these gentlemen have been very lenient with the department. A very rigid evaluation would, I believe, have resulted in fewer A's and more B's and C's.

One of the gentlemen who marked the questions made the following comments about them —"Questions marked B were so marked because I felt the average bedside nurse may be able to answer the questions intelligently, yet not show by that answer that she is a competent bedside nurse. Questions marked C I felt had no bearing whatever in determining the quality of the bedside nurse. Most of these questions should be determined by the physician in charge and the nurse simply comply with the request of the physician's orders. Some of these questions marked C show efforts by the examiners to determine whether the nurse may be controlled by a central bureau."

The most liberal construction, I think, is that the department is giving the same examination to the young woman who wants to qualify as a general duty nurse and the one who wants to be a public health nurse or a nursing executive. To me this seems all wrong. What would we think of a University that gives the same examination to a candidate for a Bachelor's degree as for a Master's or even a Doctor's degree? Besides the Illinois Nursing Act was proposed and enacted with the avowed purpose of protecting the citizens of this state against exploitation by incompetent nurses. Is it accomplishing its purpose? Are the type of examinations given by the Department of Registration and Education, the requirements made of the hospital training schools for nurses and the educational tendencies which these foster and encourage likely to accomplish the avowded purpose of the law or are they designed to create a class of supernurses? If I read the Nurses' Act correctly, the latter is not the intent of the law and the Department of Registration and Education has no right to so construe it or use it for that purpose.

It is earnestly to be hoped that this practice of trying to make a supernurse out of every little probationer who enters a training school for nurses will give place to a serious effort to prepare each one for those services to society for which she is best fitted by natural aptitude, temperament and intelligence.

Bulletin No. 6 of the State of Illinois Department of Registration and Education contains a copy of the Illinois Nursing Act and a general statement of the policy of the department. Here again contrary to the opinion of the Attorney-General it states the qualifications of a training school for nurses and then gives two courses of instruction required of the training schools. Course No. 1 requires three hundred and twenty-four (324) hours in a period of two years, and course No. 2 requires two hundred thirty-two (232) hours. My first comment would be that I do not believe that any considerable per cent. of nurses whose instruction covered only two hundred thirty-two (232) hours could pass the questions asked in the recent examination. Besides I do not believe that the department is making a serious effort to follow either the letter or the spirit of the law. The tendency of those who are elected and appointed to enforce the law themselves disobeying the law is one of the most serious tendencies in our government, a tendency

which if not soon checked will surely result in most serious consequences.

In order that the readers of the JOURNAL may judge for themselves as to whether the questions recently asked of the candidates for registered nurses are the sort of questions that should be asked of these candidates, I have prevailed upon the editor to publish these questions with this article.

NERVOUS, MENTAL AND MEDICAL NURSING

1. What organic diseases of the nervous system produce mental disorders?
2. Do the endocrine organs influence mental development? (a) State reason for your answer.
3. What do you understand by paranoia? (a) At what age does it occur?
4. Mention four forms of treatment in nervous and mental diseases.
5. What is chorea? Give principal points in nursing care.
6. How would you arrest epistaxis?
7. Outline nursing care in the treatment of suppression of urine.
8. Describe the usual course of the temperature in typhoid fever. (a) What is the usual character of the pulse in typhoid?
9. Name some adverse symptoms to be watched for when nursing scarlet fever. (a) What period of the disease is it contagious (b) Is the microorganism easy to destroy?
10. How would you prepare and give a nutritive enema?

PEDIATRICS

1. Name the qualifications a nurse should possess in order to make a success of Pediatric Nursing?
2. State general care of skin of children suffering from Exanthematic Diseases?
3. Give name of test used for diagnostic purposes in: (a) Diphtheria. (b) Scarlet fever. (c) Tuberculosis.
4. Name six nursing measures used to reduce fever in children.
5. Define Poliomyelitis. What are the special points to be observed in the nursing care of this disease?
6. What is Thrush? Describe preventative treatment.
7. What dietetic requirement would you force in an undernourished infant?
8. Name equipment and give procedure of making a sterile formula.
9. Give care and feeding of the premature infant.
10. At what age should a child be taught to use a tooth brush? How should the teeth be cared for prior to this time.

ETHICS AND HISTORY OF NURSING

1. Why is the science of Ethics an important subject for a nurse to study?
2. Name the nursing organizations which every graduate nurse should join, and state the qualifications for membership in each.
3. How can the individual nurse help to forward the advancement of her school?
4. What qualities do you consider essential for success in the following branches of nursing: (a) Private Duty Nursing, (b) Institutional Nursing, (c) Public Health Nursing?
5. How can a nurse determine whether her conduct is right or not?
6. What are the present trends in nursing education?
7. Outline the most important accomplishments of Florence Nightingale.
8. How has the advancement of scientific medicine affected nursing?
9. Name four U. S. Government Nursing Services and state the function of each.
10. What advice would you give a young woman who was seeking information concerning schools of nursing with a view to entering the nursing profession.

OBSTETRICS

1. Describe the ligamentous support of the uterus.
2. Why is it important to practice perfect asepsis in obstetrics?
3. (a) What is the cause of postpartum hemorrhage? (b) Mention the nurse's duties in such an emergency.
4. What do you understand by the term "presentation" and "positions"?
5. Why are forceps used to hasten delivery?
6. (a) How soon after labor should the bladder be emptied? (b) Mention measures that could be tried on a patient unable to void before using a catheter.
7. How does the uterus stop bleeding from the placental sinuses?
8. Give the general principles of the dietary throughout the puerperium.
9. Outline the local and general nursing care of a patient having had extensive lacerations and repair.
10. Define the following: (a) Hyperemesis gravidarum, (b) Ophthalmia neonatorum, (c) Asphyxia, neonatorum, (d) Resuscitation.

DIETETICS

1. Define, give the function and source of food.
2. Name some foods rich in each of the following: (1) Proteins, (2) Carbohydrates, (3) Fats, (4) Mineral matter.
3. State the five principal methods by which foods may be preserved.
4. What percentage of meat is lost during the process of digestion?
5. What becomes of the end products of Metabolism and all unutilized food after the process of digestion and absorption are completed?
6. What is Lactose and where is it found?
7. How would you prepare a baked egg?
8. Tell how you would prepare vegetable soup for an infant, stating what vegetables you would use.
9. State one process to, First—Extract meat juices, Second—To retain meat juices.
10. Mention ten points to be observed in serving food to the sick.

HYGIENE AND SANITATION

1. Define—(a) Personal Hygiene, (b) Sanitation.

2. Make a list of eight personal habits which might lead to the undermining of the health of an individual.

3. Name the important food groups and state what contribution to the body's requirements each group makes.

4. What are the beneficial effects which may be derived from a daily bath?

5. What habits of eating do you consider necessary (a) to cultivate, (b) to avoid?

6. Name four diseases which may be transmitted to man through contaminated milk.

7. How would you proceed to obtain information concerning State laws in relation to the control of communicable diseases?

8. How would you differentiate between quarantine and isolation in relation to communicable diseases?

9. Name the more common sources of contamination of drinking water.

10. Outline a community program for the prevention and control of diphtheria.

SURGERY AND GYNECOLOGY

1. (a) Outline duties of the sterile nurse during an operation. (b) Duties of the nonsterile nurse.

2. Give method of sterilization of the following—(a) Rubber gloves, (b) Cutting instruments, (c) Suture material.

3. Give symptoms, cause and nursing care of shock.

4. Mention two conditions which may result from pressure points of a plaster cast.

5. Outline preparation for hypodermoclysis.

6. For what purpose are the following used? (a) Ambulatory splint, (b) Buck's extension, (c) Tourniquet, (d) Rentention catheter.

7. Why must the bladder be emptied before an operation?

8. What do you understand by "precaution" in the nursing care of a gynecological patient?

9. Name three types of catheters and give method of sterilization of each.

10. Locate the following—(a) Perineum, (b) Peritoneum.

BACTERIOLOGY AND URINALYSIS

1. Why is the knowledge of bacteriology important to the nurse?

2. Give name of the leukocytes which protect the body from bacteria.

3. What do you understand by the term toxemia? Give example.

4. What are: (a) Saprophytic bacteria? (b) Pyogenic bacteria?

5. What points are to be considered in the value of a disinfectant? (a) State strength of bichloride solution, also alcohol for skin disinfectants.

6. Discuss the pasteurization of milk. (a) Why do we pasteurize milk?

7. Name the microorganisms that produce: (a) Infection. (b) Inflammation.

8. Name causes that may: (a) Decrease the quantity of urine. (b) Increase the quantity of urine.

9. When albumin is found in the urine what pathological conditions would you suspect?

10. What are the epithelial cells often found in urine?

MATERIA MEDICA

1. Name five rules that should guide a nurse in the administration of medicine and care of the medicine cabinet.

2. Name three conditions that govern the dosage of medicine.

3. Name four sources from which drugs are derived.

4. To what classifications do the following drugs belong:

a—Cascara Sagrada
b—Cocain
c—Calomel
d—Strychnine
e—Pepsin
f—Veronal

5. You have a solution of Strychnine in which twelve drops equals a 1/30 gr. you are told to give 1/40 gr. How much of the solution would you give?

6. How much Silver Nitrate solution containing 48 grs. to the ounce must be used to make one pint of a 1% solution?

7. Name and give purpose of the four parts of a Prescription.

8. If the adult dose of Atropine Sulphate is Grain 1/100 what would be the dose for a child 8 years of age? For a child ten months old? Give examples of each.

9. Define and name one of each: a—Vaccines, b—Allergens, c—Serums.

10. Name: a—Heart Stimulant, b—Heart Sedative, c—Heart Depressant.

ANATOMY AND PHYSIOLOGY

1. (1) Define Bone. (2) Name two kinds of Bony tissue.

2. Name the content of the canal in the long bones.

3. Classify the ribs into their various groups and state how many ribs are in each group.

4. Name the three coverings of the brain.

5. Describe and give the function of the following:
(1) Motor Nerve Fibers.
(2) Sensory Nerve Fibers.

6. What is the chief function of the Red blood cells?

7. Name and give the function of the largest gland in the body.

8. Name the various tissues of the body.

9. Locate the Islands of Langerhans.

10. Locate and describe the thyroid gland.

BLOOD TRANSFUSION

DISCUSSION OF INDICATIONS AND METHODS*

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Blood transfusion is of interest to all branches of medicine. Most surgeons have used it from time to time in major crises but the method is applicable to medical as well as surgical cases and is not used as much as it deserves. Indications have widened markedly since the first successful attempt by artery to vein anastomosis and especially since the iso-agglutinin groups have been thoroughly understood and used in securing suitable donors. The technique at the present time is applicable in the home in an emergency as well as in the hospital. Familiarity with this therapeutic agent and adoption of some standard technique leads to use in other cases than as a last resort. Perhaps one of the most dramatic things we see in medicine is the rapid and complete response to transfusion in hemorrhage. A patient may be pulseless, cold, clammy, restless, pale and pink in color, quiet, pulse good quality, warm before the completion of the injection of 700 to 800 c.c. of blood. The indication here is obvious. In shock both as a prophylactic agent in poor risk patients just before operation or immediately afterwards the response is no less dramatic. During the world war gum acacia solutions were used with the idea of its superiority over saline because not so readily exuded through the vessels. Where blood is available, however, it is far superior to any artificially prepared colloidal mixture.

Blood supplies several things. It increases volume, raises blood pressure, supplies new oxygen carrying cells, increases coagulation or shortens increased bleeding time such as in purpura hemorrhagica, hemorrhagic disease of the new born. In diseases associated with jaundice I have used it with life saving results. Chronic infections are often associated with anemia, chronic osteomyelitis of which is a good example. I have found repeated transfusions of value in chronic infections in two ways, to replace lost blood and stimulate antibody formation. Blood infections are associated with extremely rapid fall of hemoglobin and red cells. I have at least one case of streptococcus viridans septicemia maintained by repeated transfusions with recovery after several intravenous injections of mercurochrome. In acute hemorrhage such as following ruptured ectopic pregnancy, incomplete abortion, ruptured liver, bleeding ulcer, I have repeatedly noted dramatic effects as mentioned before. Chronic empyema cases have progressed faster and convalesced quicker by counteracting the secondary anemia with repeated transfusions. A case of Banti's disease with marked secondary anemia was prepared by two whole blood transfusions followed by a third citrated blood transfusion immediately after splenectomy for an uneventful recovery. These are the experiences in general surgery in an average run of cases and have been repeated over and over again by others where the agent is adopted and used where benefit can be obtained. There is no question then that the indications have been widened.

The point then arises as to why the use of transfusion of blood has not become more widespread. This leads us to a discussion of a number of things. First of all, what danger is there connected with its use? We can reply that with competent grouping followed by a compatibility test between recipient and donor, with the meticulous attention to technique required of any intravenous injection using the whole blood method there is probably no more danger than an intravenous injection of saline. The fact is well known that all bloods are not compatible. In olden times before the iso-agglutinins were understood many deaths were reported due to this fact. This trouble may be avoided by making proper agglutinin tests. Blood falls into four groups known as types one, two, three and four. Of these two and four are the commonest, two making up 40 per cent., four 45 per cent. Types one and three 5 per cent. and 10 per cent. respectively. Type four is a universal donor so-called because its red cells are not agglutinated by another group. Type one is a universal recipient because its serum cannot agglutinate the red cells of another group. In making the test only type two and three sera are necessary. Seras are obtained from known types two and three under sterile precautions and can be kept almost indefinitely in the ice box and retain their potency.

*Read at bi-annual meeting Mercer County Medical Society, Aledo, Illinois, May 7, 1929.

By carrying out the technique of this test clumping or not will occur as shown by the slide and the patient's group determined. A series of donors are tested out and one in the same group utilized if possible or if not a group four may be used. A Wassermann should be done if there is time. Following this another extremely important test must be done if undesirable reactions are to be avoided, i. e., cross matching. The serum of patient should be tested against donor's corpuscles and vice versa. If there is clumping that donor should not be used. For practical purposes a compatibility test between recipient's serum and donor's corpuscles is all that is necessary. The test is simple. Eight or ten drops of patient's blood is allowed to drop into a small tube that has a drop of 3 per cent. sodium citrate in normal saline in it. This is centifuged and the supernatant sera tested against the donor's corpuscles. This test should not be omitted except in the most urgent cases.

Secondly, aside from death or a terrific reaction due to improper grouping and incompatibility another danger is the milder reaction dependent on the technique used. Methods of transfusion may be classified into

Direct—artery to vein.
Indirect—

1. modified—citrated method.
2. whole blood.

Reactions consist of a chill, rise in temperature to 103 to 105, pain in legs and back, terrific headache, vomiting, rarely urticaria or petechia. They vary in degree and may come on while giving the blood though usually not for 12 or 24 hours afterwards and have occurred in my experience as late as the fifth day. Various theories are advanced to account for them such as bloods being incompatible, addition of anticoagulants such as sodium citrate, chilling of the blood or delay outside the body leading to some unexplained change in its composition, some ingredient being absorbed from the rubber tubing or glassware, etc. In view of these facts it seems reasonable to assume that blood the shortest time outside the body, to which no foreign substance is added and which comes in contact with a minimum of foreign surface would, other things being equal, give the fewest reactions. This holds true clinically. Modified blood transfusion gives as high as 33 per cent. reactions whereas whole blood methods give from 2 to 15 per cent. varying with different observers.

Each of these methods has its place, however. The direct method is of course obsolete. First, because of the contact between donor and recipient and secondly no accurate method can be used to determine the amount given. Of the indirect methods the citrated type is the oldest. Blood is drawn into some suitable container, 2.5 per cent. sodium citrate being stirred into it a few drops at a time as the blood comes out in the proportion of 50 c. c. to each 450 c. c. of blood. Coagulation is prevented. It is then injected either by gravity or a pressure apparatus into the recipient just as in giving an ordinary intravenous injection. This method has a high percentage of reactions but has several advantages and should be included in the aramentarium of the transfusionist. Its main advantages are the blood can be drawn at a distance from the patient and transported if kept warm. Furthermore, in patients just operated on who cannot be moved to the operating room conveniently it is an advantage to draw the blood under aseptic precautions and then take it to the patient's room unhurriedly and administer it as slowly or as fast as desired. It is an easy method to master, no elaborate apparatus is required, requires no trained team, is a one man method.

The transfusion of whole blood, however, has gained wide popularity in the past few years. The reason is obvious. Unmodified blood put immediately into the vein of the recipient is loaded with all the constituents of value to the individual. Blood is an unstable fluid even short delay outside the body or the addition of even as harmless a substance as sodium citrate changes its character. The chief difficulty has been the prevention of coagulation. Many different makes of transfusion apparatus are on the market. Most of the apparatus may be taken as typical of the syringe threeway valve method. They are open to the objection of a complicated apparatus with valves and lengths of rubber tubing which is apt to become clogged and is hard to keep clean. The Percy Kimpton tube or Strauss syringe method may be taken as typical of the more direct transference of blood in a short length of time without complicated apparatus. In the Percy or Kimpton tube blood is allowed by its own pressure to fill a glass tube of

250 c. c. capacity drawn out to a tip at the end to connect with a cannula. The tube is coated with a special wax preparation before use to prevent coagulation. The same tube is then attached to a cannula or inserted directly into the vein of the recipient and forced in rapidly under air pressure. In the hands of an expert with proper preparation of the tubes the method is very successful but requires considerable experience and cutting down on the recipient's vein is necessary.

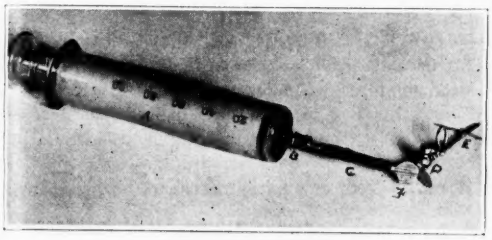

Plate 1

Syringe Method of Blood Transfusion
A. 100 c.c. syringe.
B. Adaptor.
E. Strauss needle showing eyelet on the shaft for Cambric needle.
D. One-way valve adopted by us to control blood while changing syringe.
F. Uprights attached to valve which rest on arm to increase stability of needle and valve.

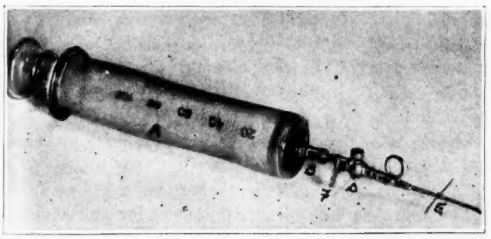

Plate 2

Whole Blood Transfusion by the Syringe Method Showing Use of Flexible Connection.
(Labels are the same as in Plate 1 except at F.)
F. Thumbpiece attached to curved adaptor on flexible connection to give better control in attaching and detaching from valve.

The favorite method for whole blood transfusion with us is the Strauss syringe method slightly modified by ourselves. It is simple, rapid, done usually without cutting down and a clean surgical procedure. Five hundred c. c. of blood can be transfused in five minutes and coagulation never is a difficulty. Two special needles devised by Strauss are used. They are inserted in the veins of donor and recipient and anchored by means of a cambric needle inserted through the skin and then through a special eye in the needle. Both needles are inserted with the point proximal on the arm for convenience. It is not necessary to have the donor's needle pointed distally as is so often carefully pointed out in the literature. A blood pressure apparatus is applied above the point where the needle is to be inserted and pumped up to diastolic pressure. The patient closes the fist and if a vein is at all present it stands out. After blood flows from the needle proving that it is in a vein a simple one way valve with a small platform attached to it to make it stand upright on the arm is attached to the needle. This is used instead of a flexible rubber connection recommended by Strauss. Both arms being ready a 100 c. c. syringe which has been rinsed in saline and then in 2 per cent. sodium citrate solution is attached to the donor. The valve is opened and if the B. P. band is at diastolic pressure the syringe fills of its own accord. It is passed to the operator at the recipient's table and injected while the same process is repeated at the donor's table. Five syringefuls are usually used. No syringe is used more than once and rarely is difficulty encountered. As a rule the whole transfusion is over in 5 minutes. Should delay occur on the recipient's table the donor's syringe is reversed and blood slowly reinjected to keep the needle open. If delay occurs at the donor's table warm saline is injected slowly into the arm with a 20 c. c. syringe to keep the needle free. If difficulty is encountered in getting into a vein we immediately cut down under local anesthesia and tie into the vein a special cannula needle with two beads on the shaft to prevent slipping devised by Strauss.

In conclusion we emphasize the fact that transfusion has much wider indications than usually considered. It is a safe, reliable procedure provided competent grouping and compatibility tests have been made and careful technique used. Modified and whole blood methods have been described. Both methods are valuable in certain cases but the whole blood method has the advantage of fewer reactions.

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INTESTINAL OBSTRUCTION DUE TO GALL STONE IN JEJUNUM

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It is not my intention to discuss this subject to any great extent, but merely to report an interesting case; because in looking over the literature I found the subject very ably discussed by many writers, some of whom I will mention in this paper.

While I feel that intestinal obstruction due to gall stone is not a frequent occurrence, still it is not rare. The first man to record such a case was Bartholin in 1654. Courvoisier, in 1890, reported 131 cases and stated that spontaneous cure resulted in seventy after passage of the stone per ano. He also stated that about four per cent. of cases suffering from intestinal obstruction are due to gall stones.

Martin in 1912 reports that out of 280 consecutive cases of intestinal obstruction from all causes only one was caused from gall stones.

Von Wagner, who covered the subject very thoroughly and looked up all available literature in 1914, found 334 cases on record up to that time.

Powers of Peter Bent Brigham Hospital of Boston reports four cases in 179 patients operated on for intestinal obstruction.

Mayo Robson reports that in 80,000 hospital patients in four large British hospitals the condition occurred four times.

Barnard reports eight among 360. Bloodgard, in a series of 280, reports one case.

Martin, while professor of surgery at the University of Maryland, sent a questionnaire to a group of surgeons and received replies from twenty-eight whose experience he estimated at half a million operations. Sixteen cases of gall stone ileus were reported to him.

In one of the English surgical infirmaries one case in 50,000 was reported.

In this case which I am reporting I was called on May 25, 1929, to see a lady who was vomiting off and on during the night:

A woman 60 years of age, weighing 230 pounds, 5 feet 2 inches tall, slightly icterus, who does not appear acutely ill but who is vomiting. Does not complain of any pain or anything else except vomiting.

Past History. Was called to see this patient three months previous because of very severe pain in the right upper quadrant and when I got to the home the patient was smiling and walking about, and the pain was all over. This was undoubtedly the passing of a gall stone.

Also saw this patient four years previous to this in 1925, with symptoms of gall bladder trouble, but she refused hospitalization. Had the usual childhood diseases, otherwise negative.

Surgical history negative.

No female trouble or menstrual disorder.

Head and face: Negative, except a slight icteric hue.

Eyes: Pupils equal and react to light and accommodation. No inflammation but conjunctivae icteric.

Nose: Negative. Ears negative.

Mouth: Teeth out, no inflammation, tongue coated.

Neck: No glands—negative.

Lungs: Negative. Bases resonant throughout and movable, also apices.

Heart: Slightly enlarged. Pulse 82, Temp. 99, Resp. 20.

No murmurs.	S. 116
Heart tones fair:	D. 60
Pulse 82	P. P. 56

Skin: Very slight icteric.

Abdomen: Distention of stomach and part of upper abdomen. No rigidity at all and very slight pain or tenderness over gall bladder region, but some distinct pain over left side of abdomen about the middle. No rigidity.

Extremities: Negative.

Female genitalae: Negative on examination. Has had menopause.

Rectal: Negative. Reflexes normal.

I made a diagnosis of partial obstruction and advised hospitalization and probable operation, but patient refused. Also refused x-ray of G. I. and gall bladder.

Washed out stomach and by refraining from food for two days and with high enemas (getting results) she stopped vomiting after forty-eight hours was able to take soft diet and liquids until June 5, 1929. That was eleven days after initial vomiting. At this time I did persuade her to go to the hospital where she refused operation, but we did G. I. and gall bladder x-ray.

Report June 6, 1929:

X-ray examination of G. I. tract by means of barium meal reveals that the stomach shows no organic disease. The duodenum and jejunum are markedly distended and we would conclude that there is an obstruction in the jejunum.

A gall bladder visualization was not satisfactory due to the fact that the patient vomited the dye. A re-check was not advisable. In the right upper quad-

rant there is a filling out of the lumen which is an appendix or diverticuli.

Operation was advised but refused, and at this time she had stopped vomiting again and medical consultation was called in and advised to wait now as the obstruction seemed to have cleared up clinically.

On June 10, 1929, fifteen days after the initial vomiting and four days after the second vomiting spell she again started to vomit for the third time and gave evidence of intestinal obstruction at this time. I again advised operation with a very poor prognosis. (But it was a chance even though a poor one.) Preliminary washing out of stomach and operation was *done*. A possibility of a malignancy was thought of but because the acuteness of the symptoms the probabilities were otherwise.

Laboratory findings:

R. B. C.—4,136,000
W. B. C.—11,200
Hem.—80 percent.

Urine:

Clear
1018
No albumin, no sugar
Wassermann—Negative.

Operation: June 10, 1929. Ethylene anesthesia.
Usual preparation.
Mid-line incision, 4-5 inches in length.

Peritoneum opened.

Abdomen explored and gall bladder region was just a mass; no anatomy of gall bladder could be found—appendix up in that region kinked and partly overbound.

Appendix dissected away and removed; stump inverted.

Duodenal and first part of jejunum distended and all other bowel collapsed.

In taking up the bowel and following it up a hard mass, the size of an egg, was felt in lumen of jejunum not movable, but not part of the bowel itself. Bowel lifted out of abdomen and incised longitudinally over mass, and the large gall stone removed. Incision in bowel closed by double Lembert suture. No seepage at all. Cigarette drain put in abdomen and closed by sewing up peritoneum fasciae and skin separately and placed three tension silk worm gut sutures through skin and fascia.

Stone was the size of hen's egg, measuring 2½ inches in length, and 1¼ inches in diameter. Oval like an egg, only one end was rough and irregular where some of it was broken off at different times and probably expelled in stool. Was brown in color and on section, where it was broken off, pathologist reported cholesterum gall stone.

Post Operative Course: Condition poor, in shock and also severe toxemia from vomiting which became fecal just before operation.

Heart stimulation given, salt solution and glucose per rectum and intravenously. Patient died June 10, 1929, 11:00 P. M., the same day of operation—thirteen hours after operation.

Pathology: Cholecystitis from the gall stone or stones, then a pericystitis with adhesions between the gall bladder and bowel with ulceration and pressure. Necrosis of wall and subsequent perforation; the process taking years to form.

Symptoms: Those of acute obstruction:

Nausea, vomiting, which at first may be periodical and then vomiting becomes constant and often fecal in a short period of time.

Distention of upper abdomen.

Pain—although not constant.

Gurgling heard with stethoscope above the site of obstruction rules out a paralytic ileum and is in favor of a mechanical ileus.

Treatment: Early operation.

Prognosis: Bad.

Mortality: Varies from 50 to 100 per cent.

Herman	82 cases	63 percent.
Vaughan	13 cases	92 percent.
Schiller	82 cases	56 percent.
Moller	22 cases	82 percent.
Martin	70 cases	69 percent.
Courvoisier	125 cases	44 percent.
Wagner	159 cases	48 percent.

Autopsy permission was given, providing only abdomen was opened:

Autopsy report. June 11, 1929, 11:30 A. M.

Body of white female, 60 years old, well nourished and showing signs of post mortem lividity. Recent scar in abdomen 4 inches in length, scar appears clear, and there are several stitches in skin flap and a cigarette drain.

Skull and thorax were not opened.

Abdomen: Liver enlarged, firm, and shows marked necrotic material in region of gall bladder. Gall bladder firm and bound to liver and the internal wall sloughed away, forming a large opening into duodenum.

Duodenum firmly bound down by adhesions.

Kidneys normal in size and appearance.

Upper bowel shows recent scar from which a large gall stone has been removed.

Appendix removed in gall bladder region.

Anatomic Diagnosis: Ruptured gall bladder into the duodenum with marked inflammatory changes of the jejunum with recent incision into the jejunum.

Conclusion:

1. Gall stone ileus is not infrequent.
2. Gall stone obstruction in bowel must always be considered in bowel obstruction in cases where there is a history of previous gall bladder trouble.
3. Early operative intervention in upper intestinal obstruction is imperative.

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THE RELATION OF ANIMAL DISEASES TO PUBLIC HEALTH*

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In Illinois and other livestock producing states animal diseases constitute a problem of increasing importance to agriculture. Modern methods of husbandry have not only intensified existing infections of animals, but artificial methods of feeding and housing have been instrumental in the development of nutritional maladies. Since man is dependent upon animals and animal by-products, we may rightfully ask regarding the influence of animal diet and human health. The value of milk, for example, which the physician prescribes implies a selected milk from healthy animals properly fed. Since certain infectious diseases of animals are communicable to man, the problem of husbandry also has an important public health aspect. In so far as animal diseases endanger the health of man physicians are rightfully concerned with a problem of prime importance to agriculture. Many factors influence this problem.

The number of animals in a given area and modern methods of transportation influence the incidence of an infectious or contagious disease of animals. In this connection it is well to remember that in the United States there are approximately 58,000,000 cattle, 42,000,000 sheep, 53,000,000 swine, 20,000,000 horses and mules, and 500,000,000 domestic fowls, valued at $7,000,000,000. Illinois alone has a domestic animal population of approximately 32,500,000 representing an investment conservatively estimated at $250,000,000. Add these figures of the economic value of animals to the immeasurable public health aspects and we are confronted with a problem which challenges the best thought in agriculture and human and veterinary medicine.

Losses from Disease. From the standpoint of agriculture the annual loss from preventable diseases in the United States approaches $300,000,000 annually, while Illinois alone contributes not less than $20,000,000 to this total. Sanitary measures are the most logical procedures through which losses from contagious animal diseases may be reduced, yet we find the ranks of the veterinary sanitary forces have been depleted with scarcely enough graduates being turned out to replace vacancies in the Federal Bureau of Animal Industry, not to mention the need of practitioners in city and urban districts. An adequate veterinary personnel is essential not only for agriculture, but also for an adequate protection to public health. The expanse of our country remains unchanged yet air travel routes make Illinois and other central states less than 12 hours from three ocean ports, while over rail lines native livestock is constantly drifting to Chicago and East St. Louis markets. A contagious disease on this continent at any point constitutes a potential threat to the husbandry and public health of Illinois.

Healthy Herds Are Essential. Animal disease factors have a bearing upon the prosperity of agriculture. No single item seems more important than a prosperous husbandry. Inefficient producing animals bring low returns. The owners of such animals and agriculture suffer proportionately. Inferior returns from animals through which 85 to 90 per cent. of all the grain raised in the United States is marketed are frequently traceable to disease. In successful husbandry animal health is fundamental, yet highly desirable animals from the standpoint of type too frequently suffer from disease. This situation prevails only because the farmer has not been convinced of the drawback or obstacle it represents to his business, or of the best method to maintain healthy herds. For the same reason the physician and the public tolerate potential dangers to public health from animal disease. To illustrate, data obtained in 350 herds in forty counties show that one in every five cows tested, including more than 3,000 animals, reacted to the agglutination test for bovine infectious abor-

*Read before Illinois State Medical Meeting, Section on Public Health & Hygiene, May 22, 1930.

tion. These data are generally accepted as indicative of the prevalence of the infection in cattle in Illinois. No branch of husbandry can profitably produce indefinitely with such a handicap, nor can undulant fever in man be completely suppressed until this infection in cattle and swine is reduced to a minimum. Infectious abortion control is not the cure-all of all the ills of husbandry, but it bids fair to favorably influence the course of Brucella infections in man. The losses from Brucella infection in cattle and swine cannot be suppressed, nor the danger of this and other diseases to man be effectively avoided until there is a more general appreciation of the relation of certain animal diseases to man. A preliminary survey of the Brucella problem suggests that many phases of this disease are not understood; but at this time information handed out to physicians and veterinarians regarding control, namely, pasteurization of milk and the establishment of clean herds, seems a reliable method of approach.

The Public Health Aspect of Animal Diseases. The control of contagious animal diseases is the responsibility of national and state livestock sanitary officials, as well as of every individual engaged directly or indirectly in handling livestock. Physicians with an understanding of hygiene have a responsibility in educating the public along the line of comparative hygiene. To state and national officials who are most intimately concerned with animal disease control, action is no longer prompted purely by economic motives. Notwithstanding the pecuniary importance of healthy animals to agriculture, the public health aspects of animal diseases are recognized as potent forces in protecting the livestock industry as well as public health. It has been said that "when there was less to know, it was possible to remain unconscious of ignorance." A knowledge of the relation between animal disease and public health for many years has prompted the development of several measures to provide proper protection, yet the number of persons who suffer from diseases traceable to animals each year clearly indicates a need of applying more rigid precautionary measures. This accomplishment entails a program of education by the veterinarian and physician in every community to develop an appreciation of the importance of the problem in the public mind.

Animal Pathology Research Started with Agriculture. The possible significance of animal pathology to human health is probably a matter of biblical record. The rational prevention of smallpox in man through cow pox virus in the 18th Century stands out as the alpha of scientic accomplishment in the field of comparative pathology. Almost a century later Pasteur's investigations in anthrox recorded the first bacterial disease in animals that was proved communicable to man. Bacteriologic research has made possible innumerable advances, and at this time much is known in the field of comparative hygiene which may be applied in behalf of public health. Scientific study of animal diseases in the United States was initiated by land grant colleges. Fortunately, the early leaders in agricultural education recognized the potential value of research in animal diseases. As a result there are, aside from ten state supported veterinary schools for training veterinarians, research departments of animal pathology in state agriculture colleges that have experienced a useful and productive field of service. One phase of the work in animal pathology at the University of Illinois includes diagnostic service. Of the 17,322 specimens submitted for diagnosis in 1929, 9,218 or more than 50 per cent of the specimens were of concern to public health or involved potential infections to man.

Animal Pathology Studies Aid Public Health. Aside from the training of veterinarians the results of many worthwhile American investigations have clarified our understanding in developing efficient control measures against contagious diseases of animals. These advances in animal hygiene have in some instances been a direct aid to human health and happiness. Hall, in his the investigational work of Umeno of Japan on medical profession the modern treatment for hookworms in man. The development of antiglanders serum by McGillary and co-workers has made it possible for the physician to treat successfully this malady in the human patient, while the investigational work of Umeno of Japan on the prophylaxis of rabies in dogs and tentatively adopted in the United States is recognized as a step in the right direction to suppress this malady from the realm of human ills. Davis, Frost, and Hadley in studies of septic sore throat in man and bovine mastitis have definitely traced

the source of infection to the bovine udder, while more recently Jones and Little of Rockefeller Institute have reported the isolation of the streptococcus of scarlet fever from bovine sources. The discovery of the Brucella genus in man by Huddleson, Moore, and Carpenter in North America, in substantiating the contention of Evans on the biologic relation of porcine and bovine Brucella types to undulant fever in man, have enabled physicians in many communities to definitely recognize a vaguely defined human fever and to hopefully approach the solution of this infection in man with a degree of understanding.

The indirect results of animal pathology investigations have served public health graciously. It was Smith and Kilbourne who first proved the carrier feature of the tick in the dissemination of cattle fever. This work was followed by the notable achievements of Reed, Gorgas, Ricketts, Noguchi, and others in unravelling the mystery of insect-borne diseases and the development of scientific methods of suppressing these diseases of man.

Recommendations of Physicians. As the result of these and other contributions and a widespread understanding of the significance of animal and human pathological problems, there is a general and growing appreciation, among thinking members of the medical professions, of the importance of animal diseases in the solution of ills of man. Indeed, it is not uncommon for the alert physician to direct attention to the local veterinarian. In a recent address by Dr. James Stewart, State Health Commissioner and Secretary of the State Board of Health, Missouri, he says:

"In many instances the practicing physician can well afford to cooperate with the practicing veterinarian and likewise urge such cooperation on the part of his patients. As a little illustration or two we shall assume that a case of undulant fever is diagnosed in the home of a farmer. In order to prevent further spread of the disease in the family and in the community, it would be well for the physician to suggest that a veterinarian be employed to make an examination of the cattle, draw blood samples, and send them to a laboratory, in that way learning the exact status of the herd from which the family milk supply was obtained. The same rule could apply in the case of tuberculosis. We must not overlook the fact that many human diseases have their origin in domestic animals. When these diseases are encountered, the family physician who advises his patients to consult the veterinarian in order to see if such diseases have actually originated in some of the livestock on the premises is pursuing a wise policy. Such a course is particularly advisable in case of a bite inflicted by a suspicious dog. The dog should be placed under the observation of a competent veterinarian, simply because he has received special training in the diagnosis of diseases of domestic animals, and if not, ought to be in a better position to make a more accurate diagnosis in animals than is the average practicing physician."

On several occasions it has come to the attention of the Illinois Experiment Station that the veterinarians in Illinois have supplied helpful clues and suggestions to the physician in enabling him to correctly diagnose or eliminate trichinosis, milk sickness, tuberculosis, botulism, and tularemia. On the other hand, some of the most potent and appreciated suggestions from physicians have come to the veterinarian in the solution of animal disease problems. As a result of these and many other helpful contacts between veterinarians and physicians on problems of comparative pathology with particular reference to milk and meat inspection, it is generally conceded that the time has arrived, in the prevention of obscure ills of man traceable to contact with animals, when the physician can consult his confrere, the veterinarian, in tracing certain clues to the chicken house, the bird cage, the hog pen, or the dairy barn to eliminate or incriminate potential sources of infection.

A Text for Reference. In a scientific review of the general considerations of animal diseases transmissible to man, there has been a need of reliable reference. To fulfill this need, the attention of physicians and veterinarians is invited to the splendid text of Dr. Hull of the American Medical Association. This book gives the reader an abundance of authoritative information in a concise form. From a few abbreviated lectures on this subject a few years ago, the results of investigations of the past decade have grown to be of such significance that the field of comparative pathology now assumes a prominent place in human and veterinary medicine. In the present day problems the veterinarian and physician must join their forces to the mutual advantage of the public, and the text referred to constitutes a splendid guide in this field.

Qualified Veterinarians Serve Health Boards. The practical approach to the public health problems which confront the physician and veteri-

narian may vary in different localities. A practice of long standing in the larger cities of having one or more veterinarians on the health board has potential possibilities worthy of consideration for smaller towns. Every city health organization should have the counsel and advice of a qualified veterinarian on animal disease problems that concern public health. Local conditions will obviously influence progress in such an arragement. Indeed, the lack of qualified veterinarians in a few localities is a factor which places an unusual responsibility upon State Schools of Veterinary Medicine. The only source of supply of veterinary service is through the colleges and universities. While the veterinary curricula have been improved in recent years, there remains much to be accomplished in an educational way to bring about the proper training and proper recognition of the veterinarian in his field. The veterinarian, like the physician, is a necessity in modern civilization. The demand for veterinarians has produced a certain development to date, but the training required has advanced more rapidly than the general public appreciates or the present educational forces can supply. The medical profession can recall without difficulty the great changes which have taken place in the medical curricula as well as in medical practice in recent years, and none can safely predict the requirements twenty years hence. Unless the quality of veterinarians can be improved, the livestock industry as well as investigational progress in animal diseases essential to the solution of public health problems as well as the extension of meat and milk inspection for smaller cities may suffer serious setbacks.

SUMMARY

In summarizing this brief discussion, it may be well to keep in mind that in the State of Illinois there are approximately 7,000,000 people who are dependent upon 11,000 physicians for information regarding health. Approximately one physician to every 633 persons. In the same territory there is a population of about 33,000,000 food-producing animals, including barnyard fowls. Man is dependent upon these animals for food and clothing. Certain of the animal diseases such as tuberculosis, rabies, glanders, anthrax, Brucella infections of cattle, goats, swine, and possibly chickens, septic sore throat, and certain specific dermatoses, actinomycosis, and a group of parasitic infections including ringworm, pork and beef measles, and trichina are communicable to man. There are approximately 600 veterinarians in the State who are especially trained in the suppression of these diseases, or one veterinarian to each 3,300 dairy and beef cows, 8,555 swine, 1,163 sheep, 583 dogs, and 41,666 chickens. The average Illinois veterinarian's services extend to 50,000 potential animal patients.

In guarding the livestock industry, veterinary services are most economically employed to prevent disease. Likewise, his services are valuable in the protection of human health through the suppression of certain animal ills communicable to man. In fact, some diseases of man traceable to animals may be most hopefully suppressed by the veterinarian. To this end the veterinarian may be advantageously used in extending our meat and milk inspection program, while consultation in matters pertaining to animal health may assist the physician in checking diseases of man traceable to animals. At least this appears to be the most logical method of approach at the present time in accomplishing the greatest good to the public in problems involving animal diseases and the health of man.

DISCUSSION

Dr. W. A. Evans, Chicago: Dr. Graham's excellent paper leads up to a proposal that a qualified veterinarian be a member of each health board. Applying what he writes to Illinois, the proposal is that a legally licensed veterinarian be one of the five who constitute the Advisory Board of the Department of Public Health, State of Illinois.

The law providing for such a board was passed by the legislature something less than twenty years ago. It provides for a director of health, who is the administrative officer, and who is solely responsible for the conduct of the department. This is as it should be. Administration by a board is never satisfactory. The Illinois board has no responsibilities, nor does the law define any duties. One state director did not ask his governor to appoint a board. Another used the board as a quasi-legislative or rule making body.

The present board is composed of one representative of the largest health unit in the state, three representatives of the medical profession, an important health agency, and one who might be designated as a representative of public health aside from governmental agency. If a veterinarian were to take a place on this board he would have to displace some representative already there, and he might be in competition with representatives of the following group activities, all

of which are connected with some phase of health and some of which are desirous of representation: The medical profession, the sanitary engineers, the dentists, the nurses, the women's clubs, the tuberculosis societies, the infant welfare societies, and some other large, local health departments. There are states in which some of these are represented as a legal requirement. Such are: Dentists, sanitary engineers, women's clubs, and medical societies.

All in all, membership on this advisory board is not the best place for a veterinarian. A better proposal is that a bureau of animal diseases should be organized within the Department of Public Health. The chief of that bureau would have some authority and his bureau would have some equipment of money and men. This could be brought about by so simple a measure as the appropriation for such a bureau by the legislature.

Another suggestion—and one not incompatible with the one just made—is that the law provide for an interlocking relationship between the State Director of Health and the State Director of Agriculture, or the State Veterinarian, now a bureau chief in the Department of Agriculture.

Dr. Graham properly emphasizes the diseases which are shared by man and animals. Some very important diseases, such as tuberculosis, rabies, undulant fever, and tularemia pass readily back and forth between men and livestock. The health department realizes it cannot protect human beings against rabies without having the service of veterinarians and they use such service. In Illinois they have done some joint work on tuberculosis, undulant fever, milk sickness, and botulinism. The relative increase of importance of food poisoning due to paratyphoid group organisms calls for still more cooperation. The tuberculosis question is developing phases which seem to indicate greater need for joint effort than has prevailed in the past.

There can be no disagreement with Dr. Graham on any essential covered in this part of his paper. Dr. Graham says: "Unless the number and quality of veterinarians can be maintained, the livestock industry . . . may suffer serious setbacks." "In Illinois there are approximately 600 veterinarians, or one to each 1,666 dairy cows, 8,555 swine, 1,163 sheep, 583 dogs, and 41,666 chickens. The average veterinarian's services must extend to 50,000 domestic animals."

The trend of veterinary medicine challenges the careful consideration of physicians, particularly of those interested in rural health.

Dr. Thomas G. Hull, Chicago: I just want to add a word or two. Our animal diseases are decreasing in frequency as we find out more about them. There is a tendency on the part of some workers to put much emphasis on a disease where only an occasional human case is reported as undulant fever. There is a very good reason for putting particular stress upon such conditions, because there are factors we do not know and until we determine those factors we are in the dark. I do not know how many missed cases of undulant fever there are or how many cases are being treated regularly. We do not know the epidemiology of this disease.

So this relationship of the veterinary profession and the medical profession must be more strongly emphasized that we may find out these things. I believe that in the future, perhaps in the not very distant future, our veterinarians are going to be trained not in the agricultural schools but in schools that are connected with the medical schools. All the basic sciences are the same, except the veterinarian has a much more difficult problem because he must know the comparative pathology, and what not, from the mouse to the elephant, while the medical profession has just one animal to deal with.

I want to emphasize also what Dr. Evans suggested, the possibility of including the veterinarian in the health department.

RINGWORM OF THE SCALP IN CHILDREN TREATED WITH THALLIUM ACETATE*

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In the latter part of 1928 the use of thallium acetate in the treatment of ringworm of the scalp was instituted at the Northwestern University. The drug was administered at the dispensary to twenty children varying in age from one and one-half to ten years. Cultural and microscopical examinations showed that sixty per cent. of the cases were caused by microsporons, and the remainder were due to the trichophytons. The duration of these lesions prior to the use of thallium acetate varied from several weeks to two years. All had previously received local medication and one had a partial x-ray epilation. We used 8 mg. of the drug per kilo given by mouth in a single dose. In from fourteen to sixteen days the majority showed complete epilation. In those in whom epilation was not complete in three weeks, the remaining hair could be painlessly removed with adhesive tape. The local use of Whitfield's ointment was started during the period of epilation and continued until the patient was discharged. Thus far no recurrences have occurred, and repeated bacteriological examinations have been negative. All children who had received 8 mg. per kilo showed no untoward reactions. One child aged seven years, however, received 8½ mg. per kilo and he devel-

*From the Department of Dermatology, Northwestern University, service of Dr. Arthur Wm. Stillians.

oped a neuritis of the lower extremities. The following cases are illustrative:

Case 1. History: Arthur R., colored boy, aged 7, weighing 47¾ lbs. (21.7 Kg.), was transferred to the skin department April 23, 1929. Examination revealed a number of coin sized bald patches scattered over the scalp. Some were larger than a quarter and showed broken-off hair above the skin level. The condition was diagnosed as tinea microsporica (fungus positive).

Treatment: On April 25, 1929, thallium acetate 0.19 gm. was given by mouth in one ounce of distilled water.

On May 9, epilation was partially complete; Whitfield's ointment prescribed.

On May 16, epilation was complete and a photo of scalp was taken.

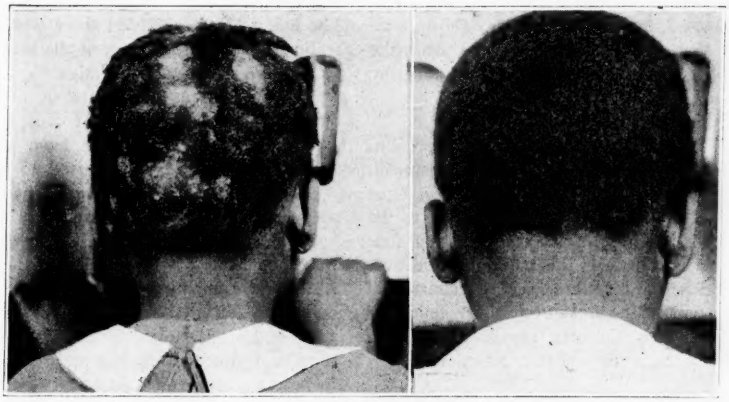

FIG. 1A
Appearance of patient with tinea microsporon.

FIG. 1B
Same patient showing regrowth of strong healthy hair after thallium epilation.

On May 23, patient complained of soreness in the lower extremities.

On June 6, hair growing in. Still complains of soreness in lower extremities.

On June 27, pain in the lower extremities practically gone.

On July 18, few small pustular lesions were noticed in the occipital region.

On August 1, hair all grown in. No signs of ringworm.

On August 29, scalp was in good condition.

On August 31, blood Wassermann ++++.

On September 26, no signs of ringworm on the scalp or any untoward effects of thallium have been noticed for the past two months.

Case 2. History: James T., aged 5, weighing 40 lbs. (18.1 Kg.), was transferred to the skin department April 25, 1929. His scalp showed several numular and oval distinctly outlined patches of a dusty appearance, varying in size from that of a quarter to that of a dollar, with broken-off short hair and covered with grey scales. Cultures from scales and hair

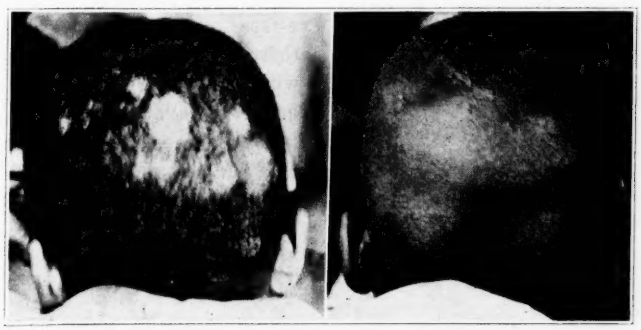

FIG. 2A
Tinea of the scalp produced by the microsporon audoiuni.

FIG. 2B
Appearance of patient eighteen days after the intake of thallium acetate.

showed this case to be a microsporon infection of the scalp.

Treatment: On May 9, 1929, thallium acetate 0.14 gm. was given internally.

On May 23, the hair started to loosen and come out.

On May 30, epilation was complete; the thallium had caused no untoward effects.

On June 6, Whitfield's ointment continued and photo of scalp taken.

On June 13, the scalp was entirely clear, all the lesions were healed, and the hair had started to grow in.

On July 20, the hair had regrown further.

On August 6, no lesions of any kind were present. The patient was discharged from the skin department.

Case 3. History: Edward O., a colored boy, aged 5, weighing 36¼ lbs. (16.5 Kg.), was admitted to the dispensary October 24, 1928. His scalp showed four oval distinctly outlined patches on the right side over the occipital region. The lesions were coin sized, of a dusty appearance, with broken-off short hair and covered with grey scales. Cultures from hair and scales showed this case to be a trichophyton infection.

FIG. 3A
Appearance of patient with kerion celsi.

FIG. 3B
Thallium epilation eighteen days after intake.

Treatment: On November 22, 1928, thallium acetate, 0.13 gm., was given orally.

On December 13, the hair began to loosen and come out.

On December 20, epilation was practically complete; Whitfield's ointment prescribed.

On March 21, 1929, the thallium had caused no untoward effects; the hair had regrown.

On May 9, cultures taken from scales and hair from previously infected areas were negative.

On June 6, no lesions of any kind were present; patient was discharged from the dispensary.

Case 4. History: Billy W., white boy, aged 6, weighing 45 lbs. (20.4 Kg.), was admitted to the dispensary August 24, 1928. His trouble was limited to the back of the scalp and consisted of several coin sized well defined patches covered with grey scales and broken-off hair. Cultures from hair and scales showed this case to be a trichophyton infection.

Treatment: From August 24, to November 8, 1928, patient was treated with local salves with no apparent results.

On November 8, 1928, thallium acetate 0.16 gm. was given by mouth in an ounce of water.

On November 22, epilation was complete; Whitfield's ointment prescribed. Patient did not return for further observation for some time. Report from the social service department showed the child to be suffering from an acute attack of influenza.

On January 12, 1929, patient returned to dispensary. The hair had regrown, but there were a few suspicious scaling patches on the back of the head. Cultures taken from these areas were negative.

On January 16, picture taken of scalp condition; otherwise same as during last visit.

March 21, scales and hair from previously infected areas taken (and later) proved to be negative.

May 16, no signs of ringworm on the scalp; patient was discharged from the dispensary.

Case 5. History: James G., a white boy, aged 2, weighing 26 lbs., was admitted to the dispensary April 9, 1929. Examination showed a single bald patch, well defined, about the size of a dollar, and covered with grey scales. History of his sister having the same trouble. Cultures from hair and scales showed this case to be a microsporon infection.

Treatment: On May 9, 1929, thallium acetate 0.1 gm. was given by mouth in an ounce of distilled water.

On May 28, epilation complete; Whitfield's ointment prescribed.

On June 13, no untoward effects from the thallium acetate. Local treatment continued.

On July 18, hair growing in.

On August 8, hair all grown in. No signs of ringworm. We were not able to observe this patient further, but it is interesting to note that this child was but two years old.

Conclusions:

Thallium acetate is a valuable drug in the treatment of ringworm of the scalp in children. It is a much easier form of treatment than x-rays, particularly in young children. Furthermore, one can produce complete epilation without fear of permanent alopecia. The toxic qualities emphasized by some have not occurred in our series and may possibly be avoided by strict adherence to proper dosage.

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PHRENICO-EXERESIS IN THE TREATMENT OF PULMONARY TUBERCULOSIS*

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The treatment of pulmonary tuberculosis has, since the advent of the sanatorium, been based upon the factor of rest. The educational pro-

*Read before the 54th Annual Meeting of the District Medical Society, Pana, Illinois, April 29, 1930.

gram for the patient has added the factor of mental relaxation to that of physical rest and there has resulted a definite rise in the percentage curve of those making favorable progress.

The third rest factor—that of local rest—makes possible, from the theoretical standpoint, a complete armamentarium for the phthisiologist for the control of any case embarking upon the "cure" before the disease has made irreparable inroads upon the total area of lung tissue and before complicating extensions to other organs have taken place.

Local lung rest is accomplished in the form of compression of that organ and, when successful, so-called compression therapy may be expected to result in immobilization as well as compression effects. While the chief effect of immobilization is the assistance given to fibrous tissue formation, compression of the tuberculosis lung results in:

1. Obliteration of cavities.
2. Formation of fibrosis (a healthy lung under compression will become uniformly fibrosed throughout).
3. Expression of fluid material—reducing toxemia.
4. Rendering sluggish the flow of blood and lymph, thereby lessening the opportunity for blood or lymph-borne extensions.
5. Reduction in lung volume.

The local rest factor in treatment has been applied to the small group of patients who have failed to make favorable progress under the regime of physical and mental rest. The indications for instituting local rest should not include those cases whose lesions show satisfactory retrogressive tendencies under the hygienic-dietetic regime.

Advances in the field of lung surgery with respect to pulmonary tuberculosis followed upon the good results obtained from induced pneumothorax. This latter form of compression has been in routine use for many years and has undoubtedly been responsible for retrogression of lung lesions that would not have halted their progressive tendencies without use of this adjunctive measure.

The indications for compression of the lung with atmospheric air or other gaseous body have become well standardized. Definite guides for the termination of this form of treatment have, so far, not been satisfactorily advanced. When, therefore, to the traumatic complications of its administration as, for example, pleural effusion, spontaneous pneumothorax, pleural shock, etc., we add the necessity for "refills" covering a period of usually not less than two years and perhaps continuing at more infrequent intervals throughout the life of the patient, or running the risk of finding or perhaps causing "activity" which will require additional surgery for its attempted control, we cannot consider that in artificial pneumothorax we have a procedure for lung collapse that is ideally suited to our compression needs, even when supplemented by thoracoplasty.

Paravertebral extrapleural costectomy has for its object the collapse of the lung through removal of its chest wall support. Even when done in two or three stages, the removal of large pieces of each of several or all of the ribs cannot but result in shock that places the procedure in the realm of major operations. It is expected that the present mortality percentages from thoracoplasty will be lowered when better surgical risks are selected for this operation. The lung collapse is permanent making it altogether advisable, before attempting this surgical measure, to make test of the ability of the contralateral lung to carry on without progression of its own lesions. Thoracoplasty in the minds of the conservative group of phthisiologists, is, therefore, a surgical procedure indicated only when satisfactory results are not possible of accomplishment by any of the other compression methods. When used according to such indications thoracoplasty is assured a permanent place in the lung surgery of pulmonary tuberculosis.

Although a method of compressing the lung in its vertical diameter by producing paralytic rise in the homolateral half of the diaphragmatic muscle, commanded our attention in the United States about the same time as thoracoplasty, indications for its use have not kept pace with the major surgical method. For the past year or two, however, phrenicectomy has been productive of such important results that we are being provided with more and better material upon which to survey its indications, compression effects and treatment results.

In the operation for the avulsion of the phrenic nerve fewer anomalies are encountered when incision is made 2.5 to 5 cm. above the clavicle. Although simple section or crushing of this nerve and its paraphrenic and cervical

sympathetic branches will give a temporary paralysis of the diaphragm on the operated side, such dissection for identication of accessory branches is accomplished with considerable more difficulty than the phrenicectomy. While in actual practice the complications for a carefully done phrenicectomy are infrequent and of minor character, a phrenicotomy which endeavors to dissect out intrathoracic branches occasionally develops mortality.

A successful phrenico-exeresis results in a permanent rise and immobilization in its expiratory position. The amount of rise varies in accordance with the retractility of the lung as well as costophrenic or other dense adhesions and usually attains a height of from 2 to 11 cm. A 15 to 35 per cent. reduction in lung volume results and corresponds to a compression by pleural air of several hundred centimetres and a spirometer reduction of approximately 30 per cent. Until recent years lesions other than basal were considrered as contraindicating this procedure.

The retractility of the lung governs its compression performance and dense apical adhesions will obviously set at naught attempts, by this method, to close a cavity with apical location. On the other hand, a basal cavity may become more efficiently compressed when adhesions at the base are extensive, for the reason that, as the diaphragm makes its attempts to rise, the upper zone of adhesions tend to limit the compression.

We feel that perhaps the most important indication for phrenic nerve avulsion is a small unilateral lesion showing progressive tendencies despite satisfactory rest regime. Another, and scarcely less important indication is when in the presence of more extensive disease, artificial pneumothorax cannot be accomplished or has failed, and when thoracoplasty is not indicated either because of the poor surgical risk or because the character of the lesion in the contralateral lung does not permit of a permanent form of compression on the more diseased side. We have all had the experience of observing cavities of large size completely close within a few months following phrenicectomy.

It is also a measure of considerable adjunctive value to other local splinting procedures, such as:

1. The prevention of reactivation by a tearing of the fibrosis upon reexpansion, when artificial pneumothorax has been terminated too early.
2. Reducing the cage diameter when the lung does not reexpand to fill the pleural space at the end of pneumothorax treatment.
3. To test the functional capacity of the other lung preceding a thoracoplasty.
4. To control hemoptysis when neither artificial pneumothorax nor thoracoplasty are indicated.

We have utilized phrenic nerve compression therapy in a series of 15 cases using the indications outlined for principal rather than adjunctive results. In no case have we failed to produce complete cavity obliteration or to halt disease progression. Clinical improvement was in every case promptly brought about and roentgenograms indicated a satisfactory healing process. In our series, we experienced diaphragmatic rises reaching to the 3rd rib and elevations continued for 6 to 8 months in some cases. There were no pneumonias in this series, and the only complication encountered was a pupillary disturbance with slight ptosis of the upper eyelid—the condition clearing after a few months.

Conclusions: Phrenicectomy has a compression value of one-fifth to one-third of the lung volume. This amount of compression is entirely adequate for controlling small progressive lesions, including many cavities of large size, when conditions of lung retractility and adhesions do not exert restricting influences. Larger lesions though but partially compressed frequently show favorable response.

It is a procedure requiring very close medical supervision involving serial stereo-roentgenography.

Its results are most uniformly good when compression is started early enough so that the entire lesion is well splinted.

Phrenico-exeresis should never be instituted in the early case responding to rest regime and offered for the sole purpose of shortening the period of the "cure." If the patient has reasonable prospects for an arrest of his pulmonary process under rest regime this important adjunctive treatment measure should be withheld against the time of a possible future reactivation.

When rest regime appears without favorable influence and phrenicectomy cannot hope to be of value or has been tried and there has been no prompt clinical or other improvement, artificial pneumothorax should be attempted with a minimum of delay.

Thoracoplasty is a surgical measure that should be used earlier in the disease and is indi-

cated in every case in which pneumothorax has been indicated and has failed. It should always be preceded by a phrenico-exeresis both to aid in its own compression as well as to test the functional capacity of the contra-lateral lung.

Phrenico-exeresis, though in skilled hands an operation of minor surgical character, should not replace sanatorium or other rest regime but should supplement it.

ACUTE MAXILLARY SINUSITIS WITH MENINGISMUS—CASE REPORT*

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Meningitis of nasal origin is fortunately a rare disease. Meningismus or meningeal irritation may occur in any acute condition. In children particularly there is a possibility of meningeal symptoms occurring in diseases other than those of the brain and meninges. R. H. Kuhns reports a case of meningismus in a boy of nine years coincident with lobar pneumonia. The writer has seen a case of meningismus in a girl of eight years associated with an anaphylactic reaction five days after the administration of diphtheria antitoxin. Temperature reached 105 degrees with typical meningeal symptom complex. Spinal puncture revealed normal spinal fluid. Prompt recovery occurred in a few days.

Meningismus present during the course of an acute maxillary sinusitis is unexpected and uncommon. As the antra of Highmore do not encroach and are not contiguous to any cranial structures a meningeal reaction appears farfetched; but it seems reasonable to presume such may exist in the presence of an acute sinusitis presenting marked toxemia. Vertigo is often based on toxemia of focal origin. Sir Wm. Wilcox stresses the sinuses as a definite focus of bacterial infection which acts as a distributing center for toxins and so brings about toxemia and its resulting effects.

The finding of an unsuspected empyema of the maxillary sinus may be a surprise, and emphasizes the definite relationship of acute sinus infection to acute as well as chronic systemic disease. L. W. Dean, Marriott and Clausen, and W. L. Burnap state that a very small percentage of antral infections is diagnosed early and that part or all of the clinical symptoms may be absent. In acute conditions the clinical symptoms are often more obvious.

Francis P. Emerson writes that in a chronic suppurative maxillary sinusitis where the tissues are involved superficially the danger to remote organs in most cases is not marked as long as the pathology is confined to the lining membrane, but if the periosteum is included then danger to the blood stream may follow and be a menace to the health or even the life of the patient. Furthermore, given an antrum with a thickened membrane or one undergoing secondary atrophy any change in the circulation of the blood and lymph at the base of skull would naturally be followed by reflex symptoms. Stasis, pressure or any condition which would cause hyperemia often cause vasomotor symptoms.

The following case is a paranasal sinus infection marked by symptoms of meningeal irritation which immediately disappeared after treatment of the maxillary sinuses.

CASE REPORT

W. K., aged 11 years, admitted to Mt. Sinai Hospital, Aug. 4, 1928, at 9:30 P. M. on the pediatric service. The complaint was frontal headache with nausea and vomiting of four days' duration.

Present History: Well until four days ago when shortly after eating some sandwiches at a party developed persistent frontal headaches of a throbbing character, vomited several times each day, at one time with a spurt, no abdominal pains, some fever.

Past History: Measles, bilateral otitis media of few weeks' duration 6 years ago, occasional nose colds. Aug. 5—Examination by Drs. Borovsky and Aries. Temp. 101, complained of severe headache during night, suggestion of rigidity of neck, no Kernig, no Budzinski, no tenderness on deep pressure over frontal and maxilliary sinuses, ears negative, no mastoid tenderness, thick murcopurulent discharge in both sides of nose and in nasopharynx, chest and abdomen negative. Bl. Pr. 108 S. 60 D.

Urinalysis: Alb. +, acetone +, sugar o. Blood exam., Hg. 80, R. B. C. 5,000,000, W. B. C. 18,000, N. 78%, L. M. 20%.

Impression: Meningitis, G. I. basis, sinusitis, influenza. X-ray of sinuses ordered. Aug. 6: Still severe frontal headache, vomited during night, Temp. 102 degrees, suggestion of Budzinski. Kernig with some rigidity of neck, Babinski negative. Chest and abdomen negative. Spinal puncture ordered. X-ray of sinuses shows cloudiness of all sinuses. No palpable tenderness over sinuses. Urine contains trace albumin. Blood exam.: W. B. C., 15,000, N. 77%, S. M., 1%, L. M.

*From the service of Dr. Noah Schoolman, Mt. Sinai Hospital.

22%. Referred to the E, N & T department, Aug. 6. Examination by Dr. N. Schoolman; both nostrils contain pus, septal deviation and hypertrophied turbinates, general moderate congestion of pharynx including tonsils, no pus expressed from tonsils, stream of mucopurulent secretion coming down pharyngeal wall, left lower premolars carious, slight rigidity of neck, ears negative, no pain.

Treatment: Large amount of pus suctioned from both nostrils. Under local anesthesia both maxillary sinuses irrigated. From right antrum return fluid contained large amount of thick floccules of pus. Small amount of pus removed from left antrum. $AgNo_3$ 2% instilled. Specimens to laboratory.

Aug. 7: Temp. 100, much improved, no headache, no vomiting, right ear began to discharge this morning without pain, no rigidity, reflexes normal, nostrils suctioned, less pus.

Aug. 8: Temp. 99, no headache since irrigation of sinuses, appetite better, face brighter Daily treatment: Suction applied with canula directly to mass of secretions within nasal chamber and not by the occlusion method, ephedrine 3% followed 5 minutes later with 10% neosilvol instilled into nose every 4 hours. Laboratory reports: Culture of pus showed pure culture of staphylococci, spinal fluid negative, Widal negative. Aug. 14: Discharged. Both nostrils open and free from discharge, feels fine, right ear dry.

I wish to thank Dr. Schoolman for the privilege of reporting this case.

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55 East Washington Street.

MIRRORS OF PARANASAL SINUSES*

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Much has been written and much remains to be written on this important subject. The medical profession is more or less the object of criticism by the public, and probably justly so because of the impression given that sinus disease is incurable and relief obtained only by a sojourn in a warm climate. If that is true, the north will soon be deserted. It is high time we correct this opinion.

To know sinuses one must have a thorough knowledge of the anatomy of the nose and paranasal sinuses, so when dealing with a problem in this field a vivid picture may be unreeling before the eyes showing the anatomy as well as the pathology, for it is the early minute changes in the tissues that spells success.

The old adage, "Find pus and follow it to its source" is passé, because there are many cases of sinus disease where there is no pus.

To be a good sinuologist, one must be a careful observer and systematic in examination, noting the slightest change from the normal.

I do not believe the problem of diseased nasal sinuses will be met successfully until the public is taught to know that head-colds are symptoms which require early and careful care, and until that same public is freed from the obsession that the infection is only a cold and will disappear in a few days. It is these first mild attacks which predispose to the chronic sinus disease and in turn produce many obscure symptoms. A glimpse into the nose and an x-ray will not make a diagnosis.

The diagnosis of suppurative sinusitis is not difficult, for by a process of elimination the infected sinus or sinuses can be found.

The non-suppurative type of disease requires the most careful examination, and the eye of the observer must be familiar with the appearance of the normal mucous membrane, for slight changes in the normal may be overlooked and the diagnosis fail. It is necessary, as far as possible, to look into each sinus before coming to the final conclusion for the radiogram, transillumination and symptoms in themselves will not make the diagnosis.

The patients who complain of frequent head-colds, frequent use of the handkerchief, unilateral headaches, are subjects for careful nasal examination, and unless we look into each sinus the diseased one may be overlooked.

Not infrequently one hears the remark after an examination that the pathological changes are not sufficient to produce symptoms. It is well to remember that patients react differently to tissue changes and the doctor should recognize this fact and correct the pathological area.

The pharyngoscope is a valuable instrument in nasal examinations and will reveal many pathological areas which might be overlooked by anterior and posterior rhinoscopy; this instrument should be used freely. It is necessary to be familiar with the normal tissue.

I have found the use of a small cotton applicator a valuable instrument, which I call a

*Read before the Section on Eye, Ear, Nose and Throat, Illinois State Medical Meeting, May 21, 1930.

"feeler"; this I pass gently over the mucous membrane in various obscure areas and inspect the cotton pledget for blood stain which usually means granulations. When the cotton is stained, that area should be examined carefully for disease.

The use of light suction I find most beneficial in locating catarrhal sinus disease. If the disease be present, light suction causes the appearance of mucus in the area of the sinus or sinuses involved. Harsh suction must be avoided.

An area to which I would like to direct special attention is the hiatus semilunaris. This area I have been examining most carefully and am surprised at the variation in its formation. There are pockets within it which may harbor infection and it should be inspected carefully. When the disease is found the uncinate process and surrounding cells should be removed.

In children where sinus disease is suspected, it is practically impossible to make a thorough examination and one should give an anesthetic, make the examination and proceed with the treatment necessary. When adenoids and tonsils are to be removed in suspected sinus cases, I always make a pharyngoscope examination before proceeding with the operation.

No one method is 100 per cent. in diagnosing sinus disease; we must resort to radiograms, transillumination, anterior and posterior rhinoscopy, pharyngoscope and sinus filling; then and only then can diseased sinuses be diagnosed.

There is much to be read in the literature of today regarding injecting or displacement fillings of sinuses with opaque substances such as lipiodol, camiodol, brominol, etc.

In studying cases in which the sphenoid had been injected, I noticed a variation in the appearance of the lining membrane of the maxillary sinus and decided to examine normal cases. With this in view I collected cases supposed to have normal sinuses, since there was no history of nasal trouble. So far, I have been able to find only ten such cases in my clinic at St. Luke's Hospital.

To begin with, x-rays were taken without injection, then taken again following an injection of lipiodol and every case showed some defective filling. I thought the lipiodol probably was an irritant producing the variation. When the case returned a week later, suction was used for a few moments, the sinus again injected and the filling defect was not the same as in the first pictures, the thickening appearing more marked on the mesial wall. A week later, I irrigated the same sinus with a normal salt solution and again injected lipiodol; this time all the walls seemed thicker.

In diseased maxillary sinuses, the filling defects were more marked after irrigating. In one case I found defective filling at the menstrual period.

In the last issue of the Annals of Otology, Rhinology and Laryngology an article by Dr. Proetz appears dealing with mucous membrane thickening in allergy cases. This has been my observation also.

In investigating the sphenoid sinuses no special changes in the mucous membrane was detected. The number of cases examined are few but if the lining of these cavities is affected after some form of irritation, one must be hesitant in pronouncing a case pathological because of defective filling.

In these cases most of the attention was given to the examination of the maxillary sinuses. I intend to continue these examinations in the hope that they will lead to definite conclusions.

I want to express my appreciation to Dr. Jenkinson of St. Luke's Hospital and Dr. Maximilian J. Hubeny for their kind assistance in this work.

DISCUSSION

Dr. A. H. Andrews, Chicago: I should like to raise one question. Speaking of normal sinuses, I question whether there are any absolutely normal sinuses after the patient has once suffered from a severe cold in the head.

Dr. S. Salinger, Chicago: I rise to defend Dr. Guttman. I cannot figure out how it would be possible to have a triangular opacity in the center of the sinus and the rest filled with material and still have it be a clear sinus. It must be levitation.

Dr. J. A. Cavanaugh, Chicago: I appreciate the discussion on my paper and would say that careful examination including x-ray and pharyngoscope findings were made. Any case of which there was the slightest doubt of its being normal I discarded, which accounts for so few cases reported. I am going to continue this work to verify my findings.

I was very careful in injecting these sinuses. As Dr. Beck says, there may have been faulty instruments or technic, but this I was very careful to avoid. If such faulty technic did exist it is one more reason that defective filling is not positive proof of a diseased sinus. This is the point I want to bring out in this paper.

When we find a defective filling we are told in most of the literature today that there is pathology in the antrum and it should be opened. I claim that this is not true, that we should be very careful in selecting our cases for operations because of defective filling.

COMMON PYOGENIC SKIN INFECTIONS AND OBSERVATION ON THEIR BIOLOGIC TREATMENT*

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Infections of the skin with pyogenic organisms are amongst the troublesome diseases of infancy and early childhood. A similar problem confronts the physician when he treats the case of acne in adolescence. Acneform lesions of face and back that occur and recur at the menstrual period are annoying, and their pathogenesis is a similar infection.

Pyogenic infection in infancy may present the picture of an impetigo which is frequently bullous and often epidemic in large obstetrical wards. It is a serious disease in these newborn infants and often goes on to keratolysis, frequently a fatal disease.

The furunculosis of infancy, particularly of poorly nourished infants, is common in the practice of every physician handling children. The common site of these lesions is the scalp, neck and back. They occur in crops, beginning as tiny inflammatory papulae around hair follicles and containing, at first, only a small drop of purulent material. Cellulitis of the scalp, periostitis and osteomyelitis of the bones of the skull and even extension through the sutures, or by the lymphatics into the meninges or brain itself occur. Infections in these infants are not infrequently accompanied by very high temperatures, and death may result. A miliary impetigo pustulosa occurs frequently in well nourished infants. The lesions are small and superficial. The blebs can be broken by abrasion with gauze. Large areas of skin may be denuded, leaving areas for secondary involvement. The common impetigo of infancy characterized by its tremendous bullous formation on a reddened burned-like base with rapid exfoliation at the edges is likewise of staphylococcus origin. It is frequently described as pemphigus neonatorum. The lesions may be discrete or may coalesce, leaving a denuded area with such great involvement that death results just as from an extensive burn. Another type of lesion is a solitary deep seated furuncle originating in the subcuticular fat. Its site of election is the thighs and occasionally the face and intrascapular region. It not infrequently recurs as a single lesion in adjacent areas. The incidence of acne at adolescence makes it an easily recognizable disease. Both for the cosmetic reason and because of the slight, but nevertheless possible danger of systemic infection, this disease merits more than casual consideration. On several occasions we have seen chorea and endocarditis subside concomitantly with the disappearance of acne lesions. Skin infections and particularly furunculosis of the inner triangle of the face (the inner one-third of the face above the upper lip) are of serious import, and not infrequently lead to intracranial complications and death. Recurrent folliculitis and formation of deep abscesses in the axilla are not uncommon. Their basis is the same as that of the lesions previously described. None have produced more difficulty in treatment than these. The disease is often prolonged, recurrent and disabling.

Surgical treatment and the local application of antiseptics for the relief of pyogenic infections of the skin are disappointing in many instances. Besredka and others have reported favorable results with wet dressing of staphylococcus broth filtrates. There is some inconvenience in this method due to the necessity of aseptic conditions for the broth filtrate and there is an additional waste of the product in its absorption by the dressings.

It occurred to us that if a base could be used containing a high aqueous content, substitution could be made of staphylococcus broth filtrate for a part of the water. A vanishing cream with a normal content of 75% water was made with all the ingredients except three-fourths of the water, and after it was mixed and cooled, the broth filtrate was added, so that there was approximately 55% of broth in the final product.

*From the University of Illinois, Department of Pediatrics and Urology, and from the Cook County Children's Hospital.

The second experiment was conducted with twelve to fifteen day whole broth cultures and since it compared favorably with the broth filtrate, our clinical results are based largely upon the whole staphylococcus broth, vanishing cream mixture. Antiseptics are added in high dilution so that their action is somewhat bacteriostatic, but not bactericidal.

The general routine of treatment is as follows: the infected and surrounding areas are roughly washed with soap and water and dried with a coarse towel. A small amount of the cream is applied at the site of the lesion and gently rubbed in. If the lesion is draining or tender, mere application covering the involved area with oiled silk or similar material is sufficient. This treatment is repeated twice daily. Surgical intervention is not usually necessary. The lesions remain limited and recurrences are rare. Our experience is based upon the use of polyvalent broth culture obtained from our own cases. In a single case it was necessary to introduce an autogenous culture.

Of thirty cases that have been treated during the past six months, all but one responded rapidly and favorably. The younger infants showed systemic improvement concurrent with the local cure. Appetite, weight and the general appearance of the children became notably better.

The following are examples of cases treated:

J. H. Age 9 months, multiple deep seated furuncles of scalp, arms and back, present for seven months, weight stationary. The staphylococcus cream was applied twice daily; marked improvement on the fourth day; discharged cured on the twelfth day. Weight increased three pounds in the following six weeks.

G. B. Age 5 months, weight 7 pounds, anemia marked; impetigo pusulosa of neck and chest, duration two months. Application of staphylococcus cream twice daily—cure in four days.

D. R., physician. Recurrent furunculosis of axilla for one year. Application of staphylococcus cream twice daily. The acute swelling and inflammation subsided in 48 hours after the first application. Lesions healed in one week and no local recurrence to date. (Six weeks after commencement of treatment.)

B. B., housewife. Multiple indurated, reddened scars of old, apparently healed, acne lesions of back. Local inflammatory redness disappeared with four applications, leaving no pigmentation.

M. O., maid. Large, angry looking furuncle at angle of nose and upper lip. Duration, one week. Staphylococcus cream was applied twice daily. The lesion disappeared in two days.

SUMMARY

1. Staphylococcus cream of the type described offers a new and efficient method of application of a biologic product.

2. It apparently aborts fresh pyogenic skin lesions, hastens healing of the moderately advanced, and shortens the time of convalescence from open lesions.

3. It apparently protects the contiguous area from infection.

4. The cream is rapidly absorbed, leaves no trace of its presence, and is entirely non-irritating in our experience.

IMPORTANT FACTORS IN THE DIAGNOSIS OF FOREIGN BODIES IN THE AIR PASSAGES*

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The symptoms caused by the presence of foreign bodies in the air passages vary according to the regions in which these bodies are arrested. We shall consider, in this paper, the regions of the larynx, the trachea, and the bronchi.

FOREIGN BODIES IN THE LARYNX

In the presence of foreign bodies in the larynx, the history of the initial laryngeal spasm is of great importance. It may be absent, however. One or more of a train of symptoms may follow, their severity depending upon the degree of obstruction of the airway between the vocal cords: hoarseness, aphonia, croupy cough, wheezing, pain on swallowing, sensation of foreign body, hemoptysis, dyspnea or cyanosis.

Hoarseness, developing suddenly, is suggestive of foreign body, but it may become recurrent or chronic. Hoarseness itself has a wide range of causes: intrinsic, such as diphtheria, influenza, acute infections causing acute laryngitis, perichondritis, laryngospasm, laryngismus stridulus, early tuberculosis, carcinoma, and lues, injury from a foreign body which has passed into the bronchi or has been expelled, or injury from manipulation: extrinsic, such as hysteria, various diseases of mediastinal organs which produce pressure upon the recurrent laryngeal nerve, goiter, tabes, and numerous general diseases.

Cough, at first severe, usually subsides as the

*Read before Section on Eye, Ear, Nose and Throat, Illinois State Medical Meeting, May 21, 1930.

larynx begins to tolerate the foreign body. It may persist, however, and become croupy.

Dyspnea varies with the size of the foreign body and the degree of reaction of the laryngeal tissues. Edema in young children may be intense, especially in the subglottic tissues even with little injury or inflammation.

In making a differential diagnosis, diphtheria must be considered, especially in a child with a distinct laryngeal stridor or dyspnea. Influenzal laryngitis or acute infectious laryngotracheitis usually comes on during epidemics. Angioneurotic edema of sudden onset usually gives evidence in other parts of the body. Laryngismus stridulus occurs in children under two years of age. It comes on suddenly, usually at night.

A diagnosis depends essentially upon the history that a healthy child had something in its mouth before the sudden onset of signs of laryngeal obstruction.

FOREIGN BODIES IN THE TRACHEA

A cross section of the glottic space is about half that of the trachea. No foreign body larger than this space can pass into the trachea. It would be arrested at the entrance to the glottis and cause asphyxia and immediate death. Foreign bodies in the trachea are either movable or fixed. Some of the organic foreign bodies may absorb water and thereby swell.

Fixed foreign bodies usually are sharp, cause some cough and some pain.

Movable foreign bodies produce paroxysms of cough when moving, a flapping sound heard at the patient's mouth, a thud felt by the examiner's fingers held on the patient's trachea, and an asthmatoid wheeze (Jackson) which is usually louder and lower pitched than the bronchial type.

Movable foreign bodies cause trauma and swelling of the tracheobronchial mucosa, and the subglottic tissue. This congestion and edema cause increased dyspnea especially in the subglottic tissues, and may require immediate relief. Especially with this narrowed glottis, there is the greatest danger of impaction of a foreign body when the patient is held with his head down and feet in the air.

A diagnosis of movable foreign body can be made on the history of the initial laryngeal spasm, if present, asthmatoid wheeze, palpatory thud, audible slap and x-ray findings.

There may be a compression stenosis of the trachea produced by goiter, enlarged thymus, aneurysm, malignancy and enlarged mediastinal lymph glands, due to tuberculosis, Hodgkin's disease or lues, which may cause dyspnea and even cyanosis.

FOREIGN BODIES IN THE BRONCHI

The symptoms and diagnosis of foreign bodies in the bronchi depend upon several factors, namely the irritating properties of the foreign body, the length of its sojourn in the bronchus and the position and degree of bronchial obstruction.

1. The *irritating* properties of the foreign body. Vegetable foreign bodies such as kernels of corn, peanuts, pieces of apple, produce immediate reaction and symptoms. Metallic foreign bodies such as pins, nails, tacks, collar buttons, etc., do not cause immediate reaction and symptoms by themselves. If symptoms arise immediately, they are due to the bronchial obstruction caused by the foreign body.

2. The *position* of the bronchial obstruction. Obviously the obstruction of a large bronchus, just below the bifurcation, will cause severe symptoms due to acute obstruction of an entire lung. On the other hand, few symptoms may arise immediately if a small bronchus is obstructed.

3. The *degree* of bronchial obstruction. Bronchial obstruction may be divided into three types.

Type 1. The *non-obstructive type,* produced by a comparatively non-irritating foreign body such as a pin or small nail, permits passage of air during inspiration and expiration. Cough is non-productive, irritating and hacking. There is slight limitation of expansion, slight impairment of percussion, slight change in tactile and vocal fremitus, and a few snapping rales best heard posteriorly over the site of the foreign body. After weeks or months, the mucosa about the foreign body swells, air becomes trapped at expiration, cough becomes productive, usually milky and purulent, and the obstruction becomes partial or total.

Type 2. *Partial or ball-valve obstruction* of Jackson, is caused by a foreign body which partially or completely obstructs the bronchus at expiration. Physiologically the bronchi dilate during inspiration and contract during expiration. The foreign body, with the surrounding

swollen mucosa, allows air to enter the involved lung during inspiration but partially or totally prevents it from leaving during expiration. Obstructive emphysema is thereby produced. There is an expiratory lag of the diaphragm, hyperresonance, and diminished tactile and vocal fremitus on the affected side, and moist rales on the opposite side.

Cough is usually severe. Expectoration, at first watery and profuse, soon becomes thicker and purulent. Asthmatoid wheeze may develop. If the patient is very young, the systemic reaction may become very intense.

Type 3. *Total obstruction* may be caused immediately by a large foreign body, or may occur gradually, as the result of the secondary changes which follow in the wake of a partial obstruction. Air cannot enter or leave the involved lung. Cough is prompt and may be violent. Expectoration rapidly becomes mucoid and abundant. Dyspnea may not be present at first but soon becomes evident as the secretion becomes more abundant and plugs other bronchi.

There is a limitation of expansion, impairment of percussion at the base, diminution or absence of breath and voice sounds, and rales are heard on the opposite side. As the air from the involved lung is absorbed obstructive atelectasis occurs. The mediastinal organs are gradually pulled over toward the involved side and compensatory emphysema develops on the opposite side.

Irritating foreign bodies cause the greatest local and systemic reaction. This is especially evident in small children. Secretion becomes more mucoid, tenacious, and abundant. It pours over into the other bronchi. As it increases in amount, it is coughed up with greater difficulty. Dyspnea increases as more bronchi become plugged. If not relieved by cough or other means, the patient may die. If the patient lives, one or more of the sequelae of chronic bronchial obstruction may follow.

4. The *length of sojourn* of foreign bodies. There is a great variation as to the length of time a foreign body may be present before causing extensive changes in the lung tissue. If a foreign body has been present a short time, the above mentioned types of obstruction may occur. One type may quickly pass into another. An acute or subacute total obstruction may result in a chronic obstruction. Usually chronic obstruction is the result of an overlooked foreign body in which there has been, either a misleading history of foreign body, or no history at all.

The bronchial obstruction prevents aeration and drainage. The destruction of the bronchi and lung tissue is rapid. Drowned lung, which usually occurs at first, is rapidly followed by bronchiectasis, lung abscess, pulmonary sepsis, or fibrosis. Cough becomes chronic. The purulent character of the sputum varies with the type of secondary invader and the amount of drainage. Fever occurs either continuous or with exaccerbations according to the degree of drainage of the involved lung. These exaccerbations increase in frequency. Night sweats, club-fingers, emaciation, hemoptosis and leukocytosis occur. Symptoms may improve or disappear with the usual regime for pulmonary tuberculosis or in the summer months, but they recur later. The physical findings are those of the pathology present.

Fluoroscopy and X-ray. Radio-opaque foreign bodies are easily detected by the x-ray. The antero-posterior and lateral plates usually locate the foreign body in the bronchial tree. If there is any doubt, the use of the fluoroscope while the patient swallows barium or lipiodol, will demonstrate that the foreign body is not in the esophagus.

Non-radio-opaque foreign bodies are more difcult to localize. The fluoroscope may demonstrate limitation of expression. Roentgenograms, taken at the end of inspiration and at the end of expiration, will also demonstrate variations in the degree of expansion. They will demonstrate an obstructive emphysema and an obstructive atelectasis. It is assumed that the roentgenograms are made and interpreted by an expert. Children who present obscure symptoms, should have a thorough chest examination confirmed by an x-ray study from the occiput to the ischium.

Differential diagnosis. It must always be borne in mind that there is a great variation in physical signs every time a foreign body shifts position. Variations also depend upon the quantity of air in the involved lung, the amount of secretion present and the degree of bronchial obstruction.

Food may be aspirated into the respiratory tract in typhoid fever and in paralysis of the muscles of deglutition. An overflow of secretion

into the respiratory tract may occur in an obstructed esophagus due to foreign body or a stenosis.

It is commonly known that bronchial stenosis from any cause leads to suppuration by stagnation of secretions.

Dyspnea with physical signs of bronchial obstruction for which no adequate explanation can be made, suggests foreign body. This may, however, be produced by bronchial tumor, bronchial polyp, peribronchial malignancy invading the bronchial lumen, involvement of the peribronchial lymph glands by tuberculosis, Hodgkin's disease, malignancy, etc., diphtheritic membrane in the tracheobronchial tree, external pressure by pericarditis with effusion, viscid secretion of bronchitis in certain contagious diseases and mediastinal compression by enlarged thymus.

Pulmonary tuberculosis, which is so frequently thought of first with chronic pulmonary pathology, usually begins in the apices. It is rarely found at the base where most of the lung changes occur as the result of the long sojourn of foreign body. Sputum is negative for tubercle bacilli.

Drowned lung may be mistaken for empyema.

Summary.

1. Recognition of the fact that foreign bodies may enter the bronchi and cause no immediate symptoms, is of paramount importance in the history and diagnosis of foreign body cases.

2. All children with vague chest symptoms should have foreign body ruled out.

3. Every case of lung suppuration should have foreign body excluded first.

PRESENTATION OF REPRESENTATIVE CASES

Case 1. Common pin in branch of right lower bronchus. (No. 5284.)

Child, aged 15 years, aspirated a common pin about five days before admission. A moderately hacking, non-productive cough was present. There was slight limitation of expansion and impairment of percussion and a few rales posteriorly. X-ray demonstrated a common pin in a branch of the right lower bronchus, and a moderate obstructive emphysema. At a second bronchoscopy, with the aid of a two-plane fluoroscope and roentgenograms, the pin was located. As the forceps was being withdrawn, the second bronchoscopic lamp burned out. Upon withdrawing the forceps and bronchoscope, the pin fell into the patient's mouth and was swallowed.

About one month later the pin was located in the descending colon.

Case 2. Peanut in right bronchus. (No. 5615.)

A child 8 years of age choked four days before admission, while eating peanuts. Considerable cough with watery expectoration. Expiratory asthmatoid wheeze, slight diminution of breath sounds, slight hyperresonance and a few fine rales posteriorly near site of branching of right lower bronchus, were present. X-ray also demonstrated obstructive emphysema of right lower lobe. Removal successful with recovery.

Case 3. Piece of apple in left main bronchus. (No. 4882.)

A child 22 months of age had a sudden violent cough and laryngeal spasm while chewing on an apple. Five hours later the x-ray revealed an atelectasis. At bronchoscopy the left bronchus was filled with somewhat clear watery fluid, which was already pouring over into the right main bronchus. After aspiration of this fluid, a small piece of apple was found plugging one of the branches of the left main bronchus. The temperature was 103 degrees at the time of bronchoscopy, and dropped to normal by the end of the fourth day. Such a patient would have drowned in its own secretion within twenty-four hours. Fortunately for us all, vegetable foreign bodies do not usually pursue such a rapid course.

Case 4. Kernel of corn in right main bronchus. (No. 5459.)

A very dramatic case, illustrating the importance of trained assistants, occurred in a boy about 2 years of age. He had had a severe choking spell while playing. This quickly subsided but the next day the boy seemed sick. The doctor called and found the temperature about 102 degrees. In the course of nine days three doctors had seen the case and had given the condition various diagnoses. The last doctor thought the child had a very peculiar type of pneumonia, but obtained a rather suggestive history that the child had been playing with some kernels of corn in his mouth. On the way to the hospital with the doctor, the boy coughed suddenly, choked and quickly became cyanotic. He was bounced about, in the usual manner, but with no improvement in the condition. Finally the doctor spread his handkerchief over the patient's mouth, and forced his breath in and out of the patient's lung. Something seemed to slip, the boy began to breathe and the cyanosis quickly disappeared. A half hour later, after all preparations were made for immediate bronchoscopy, an x-ray was taken. The atelectatic lung was easily seen and the site of the foreign body determined. The instant the boy was laid back on the operating table, he stopped breathing, became cyanotic and clamped his jaws together with such terrific strength that nearly two minutes elapsed before they could be separated. Within the next thirty seconds the bronchoscopy was passed, thick masses of tenaceous, stringy exudate aspirated or pulled out with side curved forceps, and a kernel of corn removed from the right main bronchus.

A tracheotomy was done within twelve hours. Two

more life saving bronchoscopies were done during the next two days. For five days and nights, after removal of the foreign body, a night special and a day special had to aspirate, every five to fifteen minutes, the accumulating tenaceous exudate with a soft rubber catheter through the tracheotomy tube. For three more days aspiration had to be carried on every half hour or hour. By the eleventh day the patient could use his vocal cords and on the thirteenth day the tracheotomy tube was removed.

This case illustrates the fact that death may follow if the only functioning lung becomes plugged, either by the foreign body which has been dislodged from its bed, or by the tenaceous stringly mucoid secretion which increases in amount and tenacity. Here the cough reflex, forced expiration and ciliary action were inadequate. It further illustrates the value of life saving bronchoscopies.

Case 5. Thimble in right main bronchus and massive collapse of involved lung. (No. 5101.)

A large boy about 14 years of age, aspirated a child's size thimble. He choked, coughed violently for a moment and complained of a pain in the center of his right lung. The next day, after antero-posterior and lateral roentgenograms were made, a bronchoscopy was done. The thimble was so firmly impacted in the right main bronchus at the level of the middle lobe bronchus and the mucosa was already so swollen that it was impossible to grasp the edge of the thimble without great injury to the mucosa. One week later a second bronchoscopy was again unsuccessful. The thimble was drawn still deeper into the right lower bronchus. X-ray showed the mediastinal structures well over on the invaded side. Cough with purulent expectoration increased. Four days later, after devising a new method for delivery, another bronchoscopy was done. A drill 22 inches long, run by the common dental foot-power machine, revolving within a hollow supporting tube, was passed through the bronchoscope, carefully placed in the center of the thimble and a hole was drilled. Air rushed in through the hole at first and then milky pus welled up into the bronchus above the foreign body. A specially devised mosquito type forceps was inserted into the drilled hole and the thimble was grasped. It was found that only at the end of expiration, when the heart was apparently in systole and other factors right, tension upward through the bronchoscope allowed the thimble to slip slightly. After many of these slight moves the thimble was delivered. Three weeks later the patient's school principal called over the phone and asked if the boy could run in a relay race.

DISCUSSION

Dr. A. A. Hayden, Chicago: The cases that have been cited by the essayist represent the type of foreign body that should be removed from the air passages. I believe there is another type that under certain circumstances it is better not to remove. I wish to speak of two cases, the first a case in which a tonsil knife was broken off in the tonsil fossa low down. (These are my own cases.) The x-ray showed the position of the knife very clearly. The point of the knife was missed, of course, when the instrument was returned to the table. The advice was given that that should be allowed to remain in the suture, and it has remained there for a number of years without giving any trouble. Of course a diligent search was made for it at the time, and in spite of the fact that the x-ray showed very definitely where the knife was, it was impossible to locate that knife and remove it.

The second case that I wish to write about concerns a gentleman seventy-six years old who went to a delicatessen store on a certain Sunday afternoon about sixteen months ago and bought some cake. He started to eat this cake and as he swallowed some of it he felt a very sharp pain on the right side of his neck. He had had some difficulty in swallowing before. I saw him a few weeks later and he showed, even by indirect laryngoscopy, a rather large swelling which seemed to be quite hard just above the larynx, quite well to the side. The x-ray showed a pin with the point directed away from the throat, that is, away from the esophagus. We thought it might be quite an easy matter to find this pin, as it seemed to protrude into the lumen of the pharynx or the upper esophagus, but it has never been possible to see that pin with an esophagoscope or with the long laryngoscope.

The question arose (and he was seen by some other men) whether or not this man had had at the time this cake was swallowed a malignant induration and that the pin caught in the obstruction that was formed by this swelling; in other words, whether or not the swelling preceded the entrance of the foreign body or followed the entrance of it. The man has gone along rather successfully for these number of months with one very serious upset about four weeks ago when he was swallowing a larger piece of meat than he should have and he had a recurrence of his pain. Aside from that he has been quite comfortable. The surgeons who saw the case thought it was well to let it alone, as very freuently a search of the anatomy of the neck is very difficult and these foreign bodies are extremely hard to find. I believe this man is better off with the pin in his throat than he would be with any attempt to remove it.

Dr. C. D. Sneller, Peoria: I thank the gentlemen very much for discussing this paper.

In regard to the presence of foreign bodies in any part of the bronchial tree which cannot be diagnosed by the usual methods, a little lipiodol or a little bismuth powder could be used along with the x-ray; on the other hand, no foreign body can be present very long, no matter how small, in the bronchial tree before there are some changes produced sufficient to make a diagnosis of a foreign body.

Dr. Hayden opened a very long story when he spoke about it sometimes being better to let foreign bodies alone.

THE PATHOLOGICAL CERVIX AND ITS TREATMENT*

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In this paper it is my object to emphasize the importance of recognizing and treating pathological conditions of the cervix, other than cancer.

Bloodgood has so frequently stated that "Cancer never begins as cancer." Quigley states with equal importance, "The physician who would serve his patients well in this field must recognize not only early cancer, but he must be able to determine precancerous conditions."

Inasmuch as my observations have convinced me that the incidence of cancer of the uterine cervix without pre-existing pathological lesions is almost nil, it seems then that there can be no more fruitful field of therapy than the cure of a pathological cervix. Assuming that the pathological cervix precedes the development of cancer of the cervix in almost every instance, that cancer developing in a truly normal cervix is so rare that an instance is scarcely ever observed in the professional life of physicians who are devoting much of their time to practice in this field, together with the fact that between 14,000 and 16,000 women are dying annually in the United States from cancer of the cervix, the importance of recognizing and eradicating the chronic pathologic cervix can scarcely be overestimated.

In order to discuss the importance of lesions of the cervix, it seems well to recall some anatomical and physiological considerations.

For the purpose of this paper we will consider the histological composition and vascular arrangement of the upper vagina, the cervix uteri, and the corpus uteri together.

The lining membrane of the vagina is stratified epithelium laid upon a well defined basement membrane of connective tissue. The vascular arrangement of the blood and lymph structures are such as inhibit early metastasis.

The lining membrane of the cervix is composed of a single layer of columnar epithelium, but laid directly upon the bundles of smooth muscle of the uterus and it is further weakened anatomically by having deep tubular glands which extend well beneath the surface between the bundles of smooth muscle fibers.

With no basement membrane, the lymph and blood vascular arrangement permits damage from slight trauma and promotes metastasis of infectious, malignant or other matters.

The lining membrane of the corpus uteri, consists of a columnar layer of epithelium, a basement membrane of connective tissue, and comparatively few tubular glands. The vascular system does not afford ready channels for metastasis.

The vaginal lining may occasionally be observed to suffer a low grade inflammatory reaction, but degeneration and ulceration are exceptionally rare.

The cervical lining is very susceptible to inflammatory changes and degenerative and ulcerative changes are the rule.

The lining of the body of the uterus is seldom involved in a true inflammatory process and degenerative and ulcerative changes are not frequent.

The canal or cavity of the normal cervix is marked at both ends by a muscular sphincter, the external and the internal os. Glands pouring secretion into the canal have an alkaline reaction. Secretion passing into the cervical canal from the body of the uterus is also alkaline.

Vaginal secretions are acid. If the cervical canal receives vaginal secretion, it is obviously an irritant. The presence of acid secretion on mucous membranes which are normally only exposed to alkaline secretions, impairs their function, disarranges their structure and carries a dangerous threat of malignant degeneration.

Normally the cervical canal is protected by the sphincter at the external os, where the junction of the columnar and squamous epithelium marks the point of transition from the alkaline to acid reaction. Traumatic infections or other damage to the structure of the external os predisposes the cervix to pathological changes.

The internal os uteri is less frequently the seat of pathology. It is a more substantial anatomical structure by virtue of the submucous connective tissue layer beginning at this point and extending beneath the entire endometrium, and also because of the angulation and mobility of the uterus above this point which is held fixed quite firmly in one position, regardless of the

*Read before Session on Radiology, Illinois State Medical Society, Joliet, Illinois, May 22, 1930.

posture of the body trunk and hips, by the utero-sacral ligament. The body of the uterus above this point, not being fixed subjects itself to occupy different positions and when changing the angle offers a force pumplike effect which empties its contents through the internal os in the direction of the cervical canal.

Under the extreme variation of intra-abdominal pressure and forceful modifications of body posture, a low vacuum may be established in the uterine body and if both os uteri have been damaged, the contents of the vagina may enter the endometrium.

The vaginal contents normally possess a variable flora of bacteria, nonpathogenic to the presence of normal vaginal structures.

The cervix and corpus uteri normally contain bacteria free contents.

When structure is disarranged, bacteria laden vaginal secretions may enter the cervix, or be exposed to cervical mucosa, thereby creating a condition of constant irritation and subsequent pathological degenerations.

PATHOLOGY

There are four pathological processes that may be differentiated and that come within the scope of this paper.

1. Cervicitis (inflammation).
2. Ulceration.
3. Ectropion.
4. Erosion.

Cervicitis may be divided into two forms, pericervicitis and endocervicitis. They usually exist together.

In pericervicitis the epithelium covering the cervix appears red, has an uneven surface and is edematous. The capillaries are increased and surrounded by inflammatory round cells. The basement membrane is poorly differentiated, pushed up at points appearing as papillae and leukocytes are observed in layers of the stratified epithelium.

Endocervicitis is relatively rare. It has been observed in my practice from irritation produced by wearing pessaries. It is said to be caused by congestion associated with venereal excesses and gonorrhea.

Ulceration of the cervix occurs more frequently in the cervical canal than on the vaginal portion. When an ulcer is confined to the vaginal portion, the cause is usually easily detected and removing the cause affords satisfactory relief as a rule. Syphilitic and tubercular ulcers require specific management. Ulceration in the cervical canal is of much greater importance. It is frequently associated with ectropion. The layer of columnar epithelium is lifted from its base on the muscularis and breaks down. The glands become involved and carry the process deeper into the muscularis. The capillaries lack the support of a basement membrane in their proliferation and bundles of smooth muscle become infiltrated with inflammatory cells (round cells and leukocytes) and break down also. The cervical canal loses its ductlike structure and becomes a ragged irregular cavity as shown on section after hysterectomy or by trachelograms after filling the uterus with radio-opaque oils.

When the tissue changes progress slowly, the glands may become occluded at their proximal ends and the gland lumen become filled with secretion and cell detritus, with the result that gland cysts or follicles of Naboth are formed. These gland cysts are often numerous and extend deeply into the cervical tissues.

Ectropion usually occurs in multipara and signifies anatomical changes at the external os which expose the columnar epithelium of the cervix to the contents of the vagina. Subsequent inflammation or ulceration or both are inevitable.

Erosion of the cervix indicates a condition where the vaginal portion of the cervix, normally covered with stratified epithelium, is actually covered with columnar epithelium, which has extended out from the cervical canal past the external os. The single layer of columnar cells rest on the basement membrane of connective tissue and appear quite normal except they possess no cilia. It is the thin layer of epithelium, the capillary network and the irregular surface of the basement membrane which gives the deep red granular appearance of an erosion. It is when a cervix appears eroded on inspection and bleeds on very slight trauma that a careful differential diagnosis of possible malignancy must be instituted.

SYMPTOMS

Fortunately and unfortunately a pathological cervix is seldom attended with pain. If pain was an early and constant symptom, the condi-

tion would certainly be detected and relieved before chronic degenerative and neoplastic changes could occur.

It is a fact, however, that many who suffer from a pathological cervix, complain of distress and pain of a more or less indefinite character and intensity, confined to the region of the pelvis and back. This distress disappears after the cervical pathology is relieved.

The most constant and important symptom is probably a vaginal discharge. In many cases it constitutes what is termed a slight leukorrhea and its presence is given little or no consideration. In other cases, it is more profuse and irritating, requiring almost constant wearing of a perineal pad and at intervals cleansing the perineum several times daily in order to maintain ordinary sanitary conditions and freedom from painful irritation of the perineum, vulva and thighs. The vaginal discharge may show enough color to stain linen, and at times be streaked with blood. Blood stained discharge may follow strenuous physical exercise or periods of sexual excitement and coitus. Such instances denote the presence of pathology and most frequently a pathological cervix.

DIAGNOSIS

To determine the presence of a pathological cervix, there are three procedures necessary in almost every case. They are:

1. *Palpation,* preferably conducted on an examining table equipped with an x-ray fluorescent screen.

2. *Inspection* with the aid of special illuminating apparatus, and with a speculum that is adapted properly to the vaginal canal for width and depth.

3. *Trachelograms,* preferably made after observing the filling of the canal with the x-ray fluorescent screen, and securing the angle or position which will best show the filling defect for the trachelogram.

By palpation one can determine the palpable size, consistency, mobility, fixation, position, the contour and irregularities and the deformities which have little or no pathologic significance.

Inspection reveals color variations, irregularities of contour, ulcerations, lacerations, puckered scars, hyperplasias, ectropion, erosions, the tendency to bleed when irritated mechanically or probed, the character and quantity of the secretion pouring into the vagina from the cervix and during inspection samples of secretion may be collected for bacteriological and other examinations.

The trachelogram, with the fluoroscopic findings, shows the size, position and contour of the cervical canal under pressure, as well as its relation to the cavum uteri, since it is scarcely possible to fill the cervix without filling the uterine body. In the differentiation of the character of a cervical lesion, it is frequently of paramount importance to know the fluoroscopic findings in conjunction with palpation of the pelvic viscera when the uterus and oviducts are filled with opaque oil, and when defects are elicited a uterogram or salpingogram along with the trachelogram are invaluable for further study and a permanent record.

TREATMENT

The treatment of pathological conditions of the cervix encountered in reviewing literature on this subject seems to present some of the greatest variations of opinion to be found in medical literature. The importance of correcting this pathology early and positively has already been mentioned. Quigley states, "we have seen many cases that have passed from the curable to the incurable while the vertebrae were being manhandled by an irregular, or the patient was being given local treatments by an uninformed practitioner of medicine."

My own experience, which covered many years of careful endeavor to derive a combined physiotherapy and medical treatment of pathological cervices, was attended with such a low degree of real efficiency that I was driven to seek new procedures. In 1914 I had the experience of doing what seemed a radical coagulation of a badly pathologic but non-malignant cervix. The results over the succeeding years was very encouraging and while occasionally a case was handled in this manner, it was not until 1925 that the method was adopted as I am using it today.

The patient is hospitalized three or more days depending upon the extent of the work done. The anesthesia used is a moderate hypnosis (scapolomine and morphin or H. M. C. Abbott) with enough nitrous oxide gas to complete sufficient anesthesia.

Patient is given regular gynecological operating preparation and by the aid of a self retain-

ing vaginal dilator, with a weighted speculum, the cervix can be drawn into the pudendum for inspection, diagnosis and operation. The cervix is dilated sufficiently to determine the depth the cervical canal is involved. If a specimen is to be removed for biopsy, a cutting electrical current is used. All pathological tissue is now destroyed with a coagulation current. I frequently go over the coagulated areas with a desiccating current before applying freely a solution of argyrol or mercurochrome. The vagina is packed fairly tight with gauze, the first portion of which is saturated also with the solution. The packing is removed in 24 hours and each day thereafter the coagulated area is carefully cleared as well as the vagina of any discharge or necrotic material. Also each day the coagulated area is again saturated with the solution. In this manner healing of the mucosa on the cervix and in the canal progresses in a satisfactory manner. Occasionally the cervix becomes edematous for a day or two, but no case in our experience has presented any undesirable post-operative result. The squamous covering meets the columnar far enough within the cervix, so that when contraction is complete there is no ectropion.

In many cases the cervix has contained numerous gland cysts of follicles of Naboth. The entire portion involved is coagulated. Scars from laceration of the cervix are coagulated and the healing secured after coagulation appears without scar and remains entirely satisfactory. In a small number of densely fibrous cervices a tendency to close out to a very small canal has been observed, and in those cases we have dilated them a few times in order to preserve free drainage.

SUMMARY AND CONCLUSIONS

1. The importance of a pathological cervix has been emphasized.

2. The general health is frequently greatly improved when a pathologic cervix is relieved by electrocoagulation.

3. A pathologic cervix as a focus of infection must be considered.

4. Pelvic lymphangitis with indefinite pelvic distress may indicate pathology along the cervical canal, not recognized by inspection of the cervix, and warrants further investigation of the cervical canal with x-rays.

5. Conception has occurred in several of our cases after electrocoagulation, where sterility has existed previous to the operation.

6. Recurring perineal and vulvar irritation, as well as unsanitary vaginal conditions are eliminated when pathologic cervices are corrected.

7. Complications connected with the period of confinement are reduced by correcting cervical pathology before conception.

8. The liability of a malignant change in the cervix after a coagulation operation seems to be very small.

9. The liability of malignant changes in unoperated pathologic cervices seems very great.

10. The value of a periodic pelvic examination for women between 35 and 60 years of age, by physicians trained and equipped for this special work, cannot be overestimated.

DISCUSSION

Dr. E. G. C. Williams, Danville: It has been my privilege to have Dr. Orndoff's paper in my hands for several days, and I have enjoyed it thoroughly. There are some generalities that appeal to me.

There are two classes of men who enter the operating room. One is the operator and the other is the surgeon, and there is all the difference in the world. I believe that the true surgeons of the whole country are the men who have had a background of detailed and careful training in pathology. The man who does not know pathology and goes into the operating room is not a surgeon but an operator. It seems to me Dr. Orndoff proves up to his position as a surgeon. I do not know whether or not he claims to be a surgeon, but at any rate his work is surgical in these cases and his background is one of pathology.

Another point that came up was one of the parts of my creed, and that is, "many cancers are preventable." It is in the caring for these diseased conditions that many cases are being prevented. Again the same thing keeps coming up of malignant growths coming in areas where there has been constant irritation or infection, something which has disturbed the metabolism of the cells, or something which has started the uncontrolable mitosis of malignant growths.

There is very little for me to add in closing. Was pleased to hear Dr. Williams emphasize some of the points of my paper and glad to know that he concurred. May I mention also that it was not my intention to present one method as superior to another, but I do believe that undesirable postoperative scar formations and subsequent contractions can far better be avoided with electrocoagulation than by cauterizing methods, for surgery of the cervix.

TREATMENT OF PNEUMONIA

The plan presented by Oscar W. Bethea, New Orleans (*Journal A. M. A.*, Sept. 27, 1930), consists essentially of: (a) Unlimited attention to general care

without "meddlesome interference." (b) Conservation of the circulatory system by perfect rest. (c) A rather high carbohydrate, low total diet. (d) Careful, regular elimination. (e) Mild alkalization. (f) Symptomatic treatment only to meet definite indications. (g) A plea for "masterful inactivity" when a case is progressing favorably and there is nothing of value to do.

CERTAIN ASPECTS OF ECTOPIC PREGNANCY*

A. J. LENNON, M. D.,
JOLIET, ILL.

It is only about fifty years ago that Parry expressed the accepted theory of his time when he said that the accident of ectopic gestation was almost always fatal, and that there was no reliable means to combat its dangers.

Etiology: Williams found evidence of inflammatory reaction in all specimens examined, and these were bi-lateral in all cases where both tubes were removed. May occur any time during the child bearing period. The youngest patient, one who had had a child seven months previously, was seventeen years old. The oldest patient was forty-one years old. It is interesting to note that thirty-one of a series, or forty per cent. were primiparas.

Diagnosis: In early ectopic gestation the diagnosis is very difficult to make.

Type 1. A sub-acute rupture or tubal abortion with symptoms of an acute abdomen of moderate severity, without any definite findings in adnexa regions. There may be a slight elevation of temperature, pulse rate and leucocytosis, with very little change in sedimentation time. The hemoglobin and red blood count may not be affected. These cases may recover and go on to so-called spontaneous cure or may have recurrence of rupture with severe hemorrhage and death.

Type 2. A massive hemorrhage suddenly occurs, signs of shock and collapse, distension of the abdomen and at times unconsciousness are present. Shifting dullness and Cullen's sign may be present.

Type 3. This type has slow, repeated attacks of pain and internal bleeding, and gradually increasing anemia and weakness. Vaginal examination reveals a mass in adnexia region.

Symptoms: Pain of various types is described, depending on the type of case.

Pain in the bladder region with frequent micturition, vaginal and rectal discomfort, or pain radiating down the thighs is not uncommon; constipation, obstipation or diarrhea and rectal tenesmus are also noted.

Fifty-one per cent. of cases complained of vaginal bleeding, which varied from a scant intermittent show to profuse bleeding. This may lead to the mistaken diagnosis of an incomplete abortion.

Differential Diagnosis:

1. Early uterine pregnancy with an enlarged corpus luteum.
2. Rupture of a Graafian follicle with internal hemorrhage.
3. Threatened miscarriage.
4. Torsion of tube or ovary.
5. Torsion of an early pregnant uterus complicated by soft fibroids and recent omental adhesions.
6. Twisted pedicle ovarian cyst.
7. Acute or sub-acute salpingitis.
8. Hydro salpinx.
9. Acute appendicitis.
10. Ruptured peptic ulcer.
11. Renal colic.

Outstanding features in diagnosis:

1. Pain as described above. This combined with a history of a possible pregnancy, an indefinite fullness and tenderness in the pelvis.

2. A bloody show which does not appear at the regular or expected menstrual time should be suggestive. The presence of clotted particles of blood on vaginal puncture.

The advance in treatment has reduced the mortality from 85% to 5%.

Prompt operative procedure. Blood transfusion if necessary. Routine treatment of shock. If patient is in a dangerous condition only the affected tube is removed. If patient's condition warrants it, other lesions may be taken care of.

We do not irrigate the abdomen after the operation, but we do remove most of the clots of blood. After care as in a case of peritonitis. Fowler's position, plenty of fluids, morphin, etc. The Relation of Ectopic Gestation to the Associated Uterine Changes and Vaginal Bleeding.

*Read before Joint Session of Medicine & Surgery, Illinois Medical Meeting, May 25, 1930.

Geist and Matus. N. Y. A. J. of O. & G., Vol. 17, p. 151. 1929.

Summarizing the literature to date, the following facts seem to be commonly accepted:

1. That vaginal bleeding is uterine in origin, is of venous character and takes place with the death of the fetus.

2. That bleeding may continue for a considerable period of time, possibly due to the pressure of viable chorionic villi in the tube.

3. That following the death of the fetus, the decidua is expelled as a cast, or in small fragments after the lapse of a variable interval.

4. In 50% of cases a decidual cast is expelled, either as a large fragment or in disintegrated pieces.

5. That curettage gives little information because when done for prolonged bleeding, as is commonly the indication, the mucous membrane is of a resting type.

6. There is, however, evidence that in spite of bleeding during extra-uterine gravidity, the pregnancy may develop to term with a living baby.

Authors report thirty-nine cases in which laparotomy was performed, and where the character of the endometrium could be determined. The purpose of the investigation was to correlate the findings in the tube and uterus with the clinical symptoms, especially with vaginal bleeding.

Authors conclude from an analysis of their findings that the occurrence of bleeding in ectopic gestations may be attributed to a variety of causes:

1. Mechanical interference. Analogous to the number of normal pregnancies which are terminated by abortions, there are patients with ectopic pregnancies who, thinking themselves normally pregnant, cause vaginal bleeding by methods to induce abortion.

2. There are many normal intra-uterine pregnancies in which bleeding or spotting occurs, especially in the early months, and which nevertheless progress to term. Some of the bleeding of an ectopic may be of this nature.

3. We would say that spotting was evidence of tubal and uterine contraction, but not of ovular death. Real bleeding may be due to ovular death.

4. Bleeding accompanies or precedes the casting off of the decidua, and is initiated by actual death of chorionic tissue.

(1) After rupture and death of the fetus it becomes macerated, the soft parts are absorbed and the bony parts by ulceration may enter a viscus.

(2) After absorption of most of the small parts the remainder of the fetus may be covered with peritoneum and a tumor remain.

(3) Another termination, after the death of the fetus, is mummification. Absorption of the water of the fetus takes place. Calcium salts are deposited in the sac around the fetus and the child is incased in a shell, or is partly calcified itself—a lithopedion. I am indebted to Dr. Gilbert Fitz-Patrick for the specimen which I have here. He will tell you the history.

* * *

The Decidual Reaction in Extra-uterine Pregnancy. By B. L. Kline, M. D. Cleveland, Ohio. A. J. of O. & G., 1929, Vol. 17, p. 42.

Conclusions:

1. That a decidual reaction of greater or less extent occurs constantly at the site of implantation.

2. That the decidual tissue persists as long as the chorionic villi are intact.

3. That following the termination of the pregnancy by hemorrhage with resultant degeneration of the chorionic villi, the local decidual tissue undergoes involution.

4. That a distant decidual reaction in other portions of the tube, uterus or elsewhere, is not constant, and that when it does occur, it may persist after the degeneration of the chorionic villi and the complete involution of the local decidual tissue.

5. That the relatively frequent occurrence of vaginal bleeding in extra-uterine pregnancy probably depends upon changes other than the casting off of uterine decidual tissue.

These conclusions were drawn from a study of seventy-four cases of extra-uterine pregnancy.

Follicular Salpingitis an Important Factor in the Etiology of Ectopic Gestation. By Henry C. Folk, M. D. N. Y. A. J. of O. & G., Vol. 15, p. 821.

There is no lack of theories concerning the etiology of tubal pregnancy. Problem is to de-

cide which factors, if any, cause the greatest majority of ectopic gestations.

All attempts to produce tubal pregnancy in animals have failed apparently the human organism alone suffers from ectopic gestation.

Study of tubes removed in patients with ectopic pregnancy is only method available. This study was carried out and the following conclusions drawn:

1. An inflammation of the tube or a history of an infection has been found in a very large percentage of cases of ectopic pregnancy. (Gonorrheal large percentage.)

2. The end result of a mild infection of the tube is the production of pseudoglands or a follicular salpingitis in a large portion of cases.

3. The frequency of the site of the ectopic nidus corresponds to the sites of the follicular changes.

4. Follicular salpingitis is the etiological factor in 90% to 95% of all tubal pregnancies.

* * *

Etiology of Tubal Pregnancy, by F. Kok. Klinische Wochenschrift, 1925, iv, 1213.

The author does not think that marked tortuous tubes and so-called tubal diverticula play as important a role as Freud and Werth had maintained. The tubes of animals, such as the cow, always are very tortuous. Tubal diverticula are much more common in hogs than in humans. Yet to date, there is reported in the literature only one case of tubal pregnancy each, in the cow and the pig.

The main factor in conveying the ovum to the uterus is the contraction of tubal musculature. These peristalic movements have been disregarded to a great extent up to the present time. The author has been able to demonstrate such peristalsis in experimental work. It is probable that this movement is mechanically stopped on one side or the other. This is common following inflammation. Schroeder says that a peristalsis, hindered and interfered with by perisalpingitic adhesions, may not be able to transfer the ovum into the uterus. Sellheim thinks a connective tissue infiltration may detract from the capacity of tubal musculature to contract.

Cutnin comes to the conclusion that the ovum itself is active by liberating the hormones necessary to start the transport mechanism of which the most important factor is that of peristalsis. Furthermore it seems plausible that a qualitative or quantitative variation in the hormone of the ovum, even with an intact tube, will prevent or alter the time of the normal tube contraction. Thus, the egg itself is responsible for extra-uterine implantation. An abnormal hormone function of the fertilized egg might inhibit the peristalsis an unusually long time.

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3. The Decidual Reaction in Extra-uterine Pregnancy. By B. L. Kline, M. D., Cleveland, Ohio. A. J. of O. & G., 1929, Vol. 17, P. 42.

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13. Differential Diagnosis of Ectopic Pregnancy. By E. M. Frommer. A. J. of O. & G., 1926, Vol. 11, P. 423. (Good.)

14. Ruptured Ectopic Pregnancy Treated by Auto Transfusion. Capt. R. L. Maynard and W. T. Reis. J. A. M. A., 92:1758-1759, May 25, 1929.

15. Extra-uterine Pregnancy Lithopaedion. J. C. Masson and H. E. Simon. Sing. Gyn. & Ob. 46:500-508.

DISCUSSION

Dr. C. C. O'Byrne, Chicago: The Doctor called attention to the fact that a very large percentage of the cases were primiparae. I believe they are primiparae because of the fact that the first pregnancy does not take place in the uterine cavity and the fetus will not lodge in the uterine mucosa but may lodge in a tube. A patient of mine, a woman of 41, had been married for more than twenty years. Her first pregnancy was in the tube. She had a rupture and a very severe hemorrhage. She was a very large woman and was almost exsanguinated. I operated on her. I made my incision in the right rectus muscle because I knew the lesion was on the right side. One of the first things I brought out was the fetus within the sac; the sac had not ruptured but the tube was still bleeding. She did well for eight days when she had a similar condition. I opened the abdomen and took out an ectopic tube on the left

side. She made a complete recovery. I have on a number of occasions operated on women for ruptured tubal pregnancy on one side and a year or two later for one on the other side. I believe the pregnancy takes place in the tube because of the condition in the uterine mucosa. She had been married twenty years and never pregnant. Had she a normal uterine mucosa I believe she would have been pregnant many years before in a normal uterine cavity.

Dr. A. J. Lennon, Joliet (closing the discussion): I wish to report a case in which there was a ruptured ectopic pregnancy in both tubes, not however at the same time but about twelve or thirteen months apart.

With regard to what Dr. O'Byrne said about pregnancy taking place in the tube because an endometritis was present, we know that pregnancy takes place in the tube and descends into the uterus where it plants itself. We find in a good many of these ectopic cases that there is an inflammatory condition of the tube and this may prevent the progress of the impregnated ovum to its right field in the uterus.

BROMIDE INTOXICATION

So many people are taking bromides on their own account, so many doctors are prescribing bromides for their nervous patients, that bromide intoxication has become comparatively frequent. Last week the American Medical Association, by publishing the investigations of Drs. Titus Holiday Harris and Abe Hauser of Galveston, indicated what happens from bromide overdosage.

The body requires a certain amount of common salt. Bromides drive out some of that necessary salt. When the displacement reaches 30 per cent, bromide intoxication develops, closely resembling several other kinds of intoxication. The victim becomes drowsy and dull. His wits wander; his memory fails. He has hallucinations, "frequently of the colored type, such as seeing a Negro man or some dark animal." The well-known bromide rash may or may not occur.

These symptoms are also those of alcoholic and other drug intoxications, inflammation of the brain, tuberculosis meningitis and several other diseases. A blow on the head may cause them.

But there is a way of distinguishing bromide poisoning. A device called the Wuth comparator indicates the amount of bromides in the blood. If the blood bromides are 30 per cent or more, the condition is one of bromide intoxication.

Treatment is to supply the patient with large quantities of salt until the body's salt equilibrium is reestablished.

RESULTS OF TONSILLECTOMY

Considering all the data from a ten year follow-up study of tonsillectomized children, Albert D. Kaiser, Rochester, N. Y. (Journal A. M. A., Sept. 20, 1930), concludes that: The real value of the removal of tonsils and adenoids cannot be definitely established in a few years. Apparent benefits during the first few postoperative years are not so evident over a ten year period. Outstanding benefits are apparent in influencing the incidence of sore throats over a ten year period. Substantial benefits are apparent in rendering children less susceptible to scarlet fever and diphtheria. Acute head colds and otitis media, though definitely lessened over a three year period, are not essentially influenced over a ten year follow-up period. Cervical adenitis is decidedly reduced in tonsillectomized children over a ten year period. The respiratory infections, such as laryngitis, bronchitis and pneumonia, not only are not benefited but actually occur more frequently in tonsillectomized children. First attacks of rheumatic manifestations occur from 30 to 50 per cent less often in tonsillectomized children. The greatest reduction occurs in children tonsillectomized early. Recurrent attacks are not benefited at all. Incomplete tonsillectomies do not offer the same protection against the usually throat complaints and infections as complete removal of tonsils. The hazards of tonsillectomy must be considered in evaluating the end-results. Considering this hazard, the late results seen in 2,200 children ten years after operation are evident only in the reduction of sore throat, cervical adenitis, otitis media, scarlet fever, diphtheria and rheumatic fever and heart disease.

PELVIC IRRADIATION IN THE CHILD-BEARING WOMAN

Palmer Findley, Omaha (Journal A. M. A., Sept. 20, 1930), asserts that preconception therapeutic pelvic irradiation has no known effect on the development of future offspring. Postconception therapeutic pelvic irradiation is fraught with grave danger to the growing fetus. So real is the danger as to justify the interruption of pregnancy when an unsuspected pregnancy has been exposed to prolonged and repeated irradiation. There is no evidence that diagnostic irradiation will produce ill effects in the growing ovum. An exploratory curettage should precede pelvic irradiation, first to safeguard against the possible dangers of irradiating a pregnant uterus and secondly to determine the possible presence of cancer. The younger the ovum and the greater the intensity of rays applied, the greater the injury to the fetus. Pelvic irradiation as a means of inducing therapeutic abortion is not dependable and should not be attempted. Temporary ray sterilization is a possibility but always an uncertainty. Expert radiologists and experienced gynecologists should confer before attempting such a procedure. Excessive loss of blood and intolerable menstrual pain may be suspended for a variable time and as a rule will not recur after the menstrual periods are resumed. It is best to proceed cautiously by administering a moderate dose which can be repeated later if necessary. Faultless ray technic and exact dosage are required to produce temporary sterilization without producing permanent amenorrhea and sterilization on the one hand or failure to arrest the menstrual periods on the other. The initial dosage should not exceed 300 mg. hours. In fibroids of the uterus of a child-bearing woman, surgery is preferred to irradiation.

PSITTACOSIS

The picture presented by the case of psittacosis reported by T. M. Rivers, Bernard Benjamin and G. P. Berry, New York (*Journal A. M. A.*, Aug. 23, 1930), was typical. The onset of the illness and the general appearance of the patient reminded one of a mild attack of yellow fever in which jaundice and bleeding are absent. (Some have likened it to typhoid.) Nevertheless, the important observation on physical examination is a consolidation of the lungs. The chief symptoms were severe and persistent headache, backache, and abdominal discomfort caused by distention. The tongue was covered by a peculiar heavy white coat that endured for more than two weeks. From the chart it is obvious that there was a disproportion between the pulse and the temperature. The most striking feature of the disease was the fact that, in spite of the marked involvement of the left lung, no symptoms referable to the chest occurred. There was no increase in rate of respiration, no pain on breathing, very little cough, and no expectoration except on two occasions. The results of their work in connection with the case reported at this time serve to emphasize the fact that the etiologic agent of psittacosis is neither Nocard's bacillus nor any other ordinary bacterium. Moreover, it appears that the white mouse may serve as a suitable animal for diagnostic purposes. Thus, in many instances, a laboratory diagnosis that ordinarily would be unfeasible will become possible. Fnally, it has been shown that the virus of psittacosis is in the sputum of individuals with involvement of the lungs, and this fact should be borne in mind by those who care for these patients.

THE TEN COMMANDMENTS OF CANCER

1. Do not cut across a cancer and leave part behind. The part remaining will grow more rapidly than if you had left it alone.
2. An operation for cancer is an operation to save life. Cosmetic results are to be considered, but they are not to be weighed against recurrence and death a few years later.
3. Never manipulate a cancer roughly either before or during operation or more often than is necessary to make a diagnosis. To do so is the easiest way to drive cells into the lymph or blood current—hence metastasis.
4. Do not let a woman drag you into her delusion that her early cancer symptoms are due to the menopause. The menopause is a normal physiological state, and if the woman's organs are healthy she will be healthy.
5. Repair every cervix that is eroded, everted or the seat of a discharge.
6. Do not rule out cancer because the patient is not old. About 10 per cent of cancers occur before thirty-eight.
7. Do not tell your patients they have cancer if you are sure they will follow your advice at once. If they are inclined to delay, tell them frankly what they have and what will be the consequence of delay. If they make their own choice, let it be done with full knowledge of facts and prospects. Tell the relatives or friends in any event.
8. To save your patients from cancer save them from delay. Do not wait for pain and cachexia—the signs of impending death.
9. Do not admit that incurable cancer is unrelievable cancer. Ligation, cautery, palliative removal, electrocoagulation, irradiation, and other proven physical methods may change distress to comfort and add months or years. The patient who appeals to you for relief is the one to be considered—not reputation or "the effect on the community."
10. Be always on the watch for early suspicious symptoms. Be prompt to follow them to a definite diagnosis. Be courageous enough to insist on immediate proper treatment.

—*Weekly Roster and Medical Digest*, June 29, 1929.

Society Proceedings

ADAMS COUNTY

The regular monthly meeting of the Adams County Medical Society was held in the Elk's Club Restaurant on October 13. This meeting was preceded by a dinner served at 7:30 in honor of the speaker of the evening, Doctor Bransford Lewis, Professor of Genito-Urinary Surgery, St. Louis University School of Medicine.

The scientific meeting was called to order at 8:20 with the President in the chair and 50 members and visitors in attendance.

Doctor Bransford Lewis of St. Louis read an interesting paper entitled "Intravenous Urography with an Evaluation of Uroselectan," which was illustrated by a number of lantern slides. The paper was discussed by Doctors Molz, Cohen, Swanberg and Pollock, and finally closed by Doctor Lewis.

Doctor Lewis was given a rising vote of thanks for the splendid address.

The Secretary read applications for membership from Doctors E. E. Lyon of Quincy, and F. B. Parker of Ursa, Illinois. These were ordered turned over to the Board of Censors for a report.

Doctor J. C. Steiner, reporting for the Public Health Committee, stated the committee did not favor the establishing of a Clinic for the Standard Review Club. A motion carried approving the report of the Public Health Committee.

The meeting adjourned at 10:45 P. M.

HAROLD SWANBERG, M. D., Secretary.

ALEXANDER COUNTY

At the regular monthly meeting of this society, held Oct. 17 at the Halliday Hotel, Cairo, Dr. Leslie E. Wallace of Thebes, Ill., presented a very able paper on "Coronary Thrombosis." Dr. B. S. Hutcheson, of Cairo, led the discussion on the same in a way that increased its value.

Clinical cases for discussion were presented by the members as follows:

Dr. O. M. Dickerson, of Cairo, "A Case of Transverse Presentation."

Dr. H. J. Elkins, of Mounds, Ill., "A Case of Hemorrhage into the Vitreous from Hypertension."

Dr. Jas. S. Johnson, Cairo, "Two Eye Magnet Cases; Success in One and Failure in the Other."

Dr. B. S. Hutcheson, Cairo, "Two Cases of Fatality from Malarial Poisoning."

Dr. B. V. Rife, Mounds, Ill., "A Case of Puerperal Eclampsia Relieved by Injection of Magnesium Sulphate Solution."

Dr. P. H. McNemer, Cairo, "A Similar Case."

Dr. J. M. Gassaway, Cairo, "An Epidemic of Intestinal Flu Observed at a Resort in Michigan During the Summer."

The Secretary announced that at the next meeting, Friday, November 21, Dr. Jas. S. Johnson would be the essayist.

JAS. W. DUNN, Secretary.

COOK COUNTY

CHICAGO SOCIETY OF INDUSTRIAL MEDICINE & SURGERY

Regular Meeting Wednesday, October 1, 1930

1. Lesions of Abdominal Viscera Encountered by the Industrial Surgeon .....J. A. Wolfer
   Discussion—LeRoy P. Kuhn and E. C. Holmblad.
2. Motion Picture Film "Traumatic Surgery of the Extremities."

JOINT MEETING CHICAGO MEDICAL & CHICAGO UROLOGICAL SOCIETIES

Wednesday, October 22, 1930

The second William T. Belfield lecture of the Chicago Urological Society. "The Preventable Infections Incident to Preparing a Prostatic for Operation."—Edward L. Keyes of New York.

Discussion—Robert H. Herbst, Edward W. White and Gustav Kolischer.

JOINT MEETING OF THE CHICAGO COUNCIL OF MEDICAL WOMEN AND THE CHICAGO MEDICAL SOCIETY

Wednesday, October 29, 1930

Auditorium, Medical and Dental Arts Building
185 North Wabash Avenue

Eclampsia:

(a) Movie Reel (Loaned by Chicago Lying-In Hospital).

(b) Preliminary Report of Research on Colostrum in the Eclamptic.....Bertha Van Hoosen

Discussion—A. F. Lash.

Multiple Small Peritoneal Cysts of the Fallopian Tubes: (With slides.)

Mabel E. Gardner, Cincinnati, Ohio. (By request.)

Discussion—Fred L. Adair and Pearl M. Stetler.

Chronic Cervicitis (Office Treatment.)

Susan R. Offutt, Mayo Clinic. (By request.)

Discussion—Eloise Parsons.

Marriages

RALPH B. GREEN, Chicago, to Miss Rose Brenner, May 21.

EDWIN PRATT JORDAN, Homewood, Ill., to Miss Marjorie Crighton of Brandon, Vt., September 18.

LAURENCE M. MOORE, Benton, Ill., to Miss Hazelle Dean Boland in Topeka, Kans., August 16.

GEORGE L. PERUSSE, JR., Chicago, to Miss Henrietta Bird of Wilmette, Ill., September 30.

WILLIAM E. RANGE, Collinsville, Ill., to Miss Grace Hallworth, September 14.

WILLIAM H. SCHOWENGERDT, Champaign, Ill., to Miss Minnie Berg of Bisbee, N. D., August 26.

PERSONALS

Dr. G. de Takats addressed the Buffalo Academy of Medicine, October 1, on "The Causes of Failure in the Treatment of Varicose Veins."

Dr. Ida C. Mann, London, England, addressed the Chicago Ophthalmological Society, October 13 on "Embryology of the Eye."

Dr. Isador S. Trostler, Chicago, addressed the McLean County Medical Society at Bloomington, October 14, on "Roentgenotherapy of Conditions Other Than Cancer."

Dr. Harry M. Hedge, Chicago, addressed the Rock Island County Medical Society, October 14, on "Modern Conceptions and Treatment of Syphilis."

The Madison County Medical Society was addressed at Granite City, October 3, by Drs. Leslie D. Darner on gas poisoning, and Quitman U. Newell, St. Louis, cancer of the uterus.

Dr. Irving S. Cutter, dean, Northwestern University Medical School, addressed the Rock Island and Moline physicians' clubs in Rock Island, September 16, on "Relation of Cultural Medicine to Medical Practice."

Dr. Robert J. Crossen, St. Louis, talked on "New Aspects of Uterine Bleeding" before the St. Clair County Medical Society, East St. Louis, October 2.

The Chicago Council of Medical Women was addressed, October 3, by Drs. Esther S. Nelson on "Vitamin D," and Mabel M. Matthies, "Vaginal Flagellosis."

Dr. Archibald V. Hill, Foulerton research pro-

fessor of the Royal Society, London, England, lectured on "The State of Water in Tissues" at Northwestern University Medical School, October 20.

A joint meeting of the Institute of Medicine of Chicago and the Society of Internal Medicine of Chicago was addressed, October 27, by Prof. Otfried Foerster, Breslau, Germany, on "Anatomic, Physiologic and Clinical Observations Concerning Chordotomy."

The second William T. Belfield Lecture was given before a joint meeting of the Chicago Medical and Urological societies, October 22, by Dr. Edward L. Keyes, New York, on "Preventable Infections Incident to Preparing a Prostatic for Operation."

The McDonough County Medical Society was addressed, October 14, by Drs. James G. Carr, Jr., and William C. Danforth, Northwestern University Medical School, Chicago, on "Management of Pregnancy Complicated by Heart Disease."

The Chicago Society of Industrial Medicine and Surgery was addressed, October 1, by Dr. John A. Wolfer on "Lesions of Abdominal Viscera Encountered by the Industrial Surgeon." A motion picture film on traumatic surgery of the extremities was shown.

Dr. Joseph A. Capps delivered the presidential address before the Chicago Pathological Society, October 13, on "Pathogenesis of Cardiac Pain"; Dr. Harry Gideon Wells spoke on "Addison's Disease with Selective Destruction of the Suprarenal Cortex"; Dr. Phillip F. Shapiro, "Pathogenesis of Glomerulo- and Arterio-Necrosis in Malignant Nephrosclerosis," and William M. McGrath and Dr. Carl W. Apfelbach, "Spontaneous Bilateral Decapsulation of the Kidneys."

Dr. Charles E. Humiston, Professor of Surgery, University of Illinois, Chicago, addressed the Knox County Medical Society of Knoxville, Tennessee. The title of his address was "Medical Parasites." Physicians from all over east Tennessee attended the meeting.

News Notes

—Dr. Alton S. Pope, formerly chief of the bureau of communicable diseases, Chicago Department of Health, has succeeded Dr. Sumner H. Remick as director of the division of tuberculosis of the Massachusetts state department of public health. Dr. Remick resigned to become superintendent of the Middlesex County Tuberculosis Sanatorium, which is in process of construction at Lexington.

—At the annual meeting of the Tri-County Medical Society (Warren, Knox, Henry), October 13, at Galesburg, the speakers were Drs. Alexander A. Goldsmith, "Chronic Colitis"; Rollo K. Packard, "Surgical Mortality and Morbidity"; Edward L. Cornell gave an illustrated talk on obstetrics.

—The twenty-second anniversary of the celebration of the founding of Northwestern University Medical School was observed on McKinlock Campus, September 30. The principal speaker was Dr. Isaac A. Abt, who reviewed medical history of recent years as related to medical education in America.

—The second annual Arthur Dean Bevan lecture of the Chicago Surgical Society was delivered before a joint meeting of the Institute of Medicine of Chicago, Chicago Society of Internal Medicine and the Chicago Society of Medical History and the Chicago surgical, neurologic and pediatric societies, October 3, by Dr. Harvey Cushing, Boston, on "The Cerebellar Astrocytomas."

—The Medical History Club of the College of Medicine of the University of Illinois opened its fourth season of public lectures, October 15. Dr. William F. Petersen spoke on "Count Struensee"; these lectures are held in the library of the college of medicine on the first and third Wednesdays of each month at 1 p. m.

—Two oxygen rooms for the treatment of patients with pneumonia were recently opened at the Michael Reese Hospital. The rooms constructed at a cost of $10,000, are made of regular building materials instead of special materials used in some other oxygen rooms. The room can be charged with the maximum of oxygen needed in from three to five minutes. One door is large enough so that the patient can be rolled into the room on a bed. The door then is closed and a small door which leads into an airlock is used for the entrance and exit of nurses and physicians.

—The hourly nursing service of Chicago, sponsored by the Joint Committee on Hourly Nurs-

ing, has received from the Julius Rosenwald Foundation financial assistance that will cover all of the promotional expenses and one-half of the operating expenses of this organization. This service was initiated by the joint committee representing the Central Council for Nursing Education and the First District Illinois State Association of Graduate Nurses in order to bring the best nursing service within the reach of people of moderate means and to furnish nursing by appointment where full-time nursing service is not needed.

—Arrangements have been made by the Illinois State School for the Deaf, Jacksonville, to provide an experienced staff with audiometer equipment to make free hearing tests of school children wherever desired. The purpose of the service offered is to locate childreu having hearing defects with a view to promoting treatment when advisable and on recommending suitable modification of teaching facilities when it is necessary. In Illinois more than 200,000 children of school age have defective hearing. Requests for the service should be filed with the state department of public health at Springfield or with the school management at Jacksonville.

—The conference of Illinois Health Officers and the Illinois Municipal League, held October 16-17, at Springfield, was addressed by Drs. Allan J. McLaughlin, U. S. Public Health Service, on "Trends in Public Health Service"; Joseph W. Mountin, director, rural health service, Tennessee State Health Department, "The Legitimate Field of the Health Officer"; Don M. Griswold, deputy health commissioner of Michigan, "Diphtheria Control Outlook"; Gilbert Fitzpatrick, "Cancer and the Public Health"; Clarence W. Hopkins, Chicago, "The Experience of a Railroad with Preventive Medicine," and Siegfried Maurer, Chicago, "Program for Saving the Infant Under One Week Old"; Dr. William F. King, state health commissioner of Indiana, on "Economics of Public Health Work."

—The fifth annual all-day clinical meeting of the Adams County Medical Society will be held at Quincy, November 17. Dr. George W. Crile, Cleveland, will speak on "Clinical Analysis of 21,135 Operations on the Thyroid Gland with Special Relation to End-Results"; "The Nature and Treatment of Peptic Ulcer," and "Management of Patients Seriously Sick"; Dr. Russell L. Haden, Cleveland Heights, Ohio, "Types and Treatment of Rheumatism"; "Differentiation and Treatment of the Anemias" and "Dental Infection and Systemic Diseases," and Dr. William V. Mullin, Cleveland, "Management of Chronic Diseases of Nasal Sinuses in Relation to Their Effects on Systemic Disease," "Bronchial Asthma" and "The Salivary Glands." Physicians are urged to attend; there is no registration fee.

—Gov. Louis L. Emmerson and President Woodburn Chase of the University of Illinois yesterday headed a group of public officials at the dedication of a group of four Chicago buildings. The structures were erected by the state department of public welfare.

The officials also took part in the laying of the corner stone for a fifth building, one belonging to the state university.

All the buildings are part of the state group occupying the old Cubs' baseball park, south of the Cook county hospital. The new units were built at a cost of $1,046,000. The new medical classroom and laboratories building will cost, when completed, $1,500,000. The buildings dedicated yesterday are the State Orthopedic institute, the Institute for Juvenile Research, the Nurses' home, and the Research and Educational Hospital Service building.

The Chicago Gynecological Society held its annual meeting on Friday, October 17, 1930. The speakers of the evening were Dr. N. Sproat Heaney, and Dr. Charles B. Reed.

The following officers were elected for the ensuing year:

Dr. Henry Schmitz, President.
Dr. D. A. Horner, First Vice-President.
Dr. A. E. Kanter, Second Vice-President.
Dr. Geo. de Tarnowsky, Treasurer.
Dr. Julius E. Lackner, Secretary.
Dr. Harold O. Jones, Pathologist.
Dr. Carey Culbertson, Editor.

Deaths

CLAUDE A. AVERY, Bethalto, Ill.; Barnes Medical College, St. Louis, 1903; member of the Illinois State Medical Society; aged 52; died, September 20, of heart disease.

JOHN PAUL BENSON, Joliet, Ill.; Rush Medical College, Chicago, 1902; member of the Illinois State Med-

ical Society; served during the World War; on the staffs of the Silver Cross Hospital and St. Joseph's Hospital; aged 53; died suddenly, September 12, of cerebral hemorrhage.

DANIEL W. BOTTORF, Astoria, Ill.; Missouri Medical College, St. Louis, 1899; also a dentist; aged 71; died, September 13, of heart disease.

THOMAS W. BURROWS, Chicago and Ottawa, Ill.; Rush Medical College, 1887; a former president of the Ottawa Medical Society, the La Salle County Medical Society, the North Central Illinois Medical Society, and of the Illinois Manufacturers Association; founder of the Ottawa Bank and Trust Company, of the Burrows hospital in Chicago and of the Central Life Insurance Company of which he was chief medical examiner; member of various Masonic orders; eminent physician and surgeon; aged 68; died, September 27,, while touring Europe at Utrecht, Holland, of heart disease.

CHARLES E. CHAPIN, Bloomington, Ill.; Rush Medical College, Chicago, 1891; a Fellow A. M. A.; past president of the McLean County Medical Society; medical director of the Brokaw Hospital; aged 64; died, September 26, of cerebral hemorrhage.

WILLIAM O. CHEESEMAN, Chicago; Hahnemann Medical College and Hospital, Chicago, 1884; aged 79; died, September 5, in Winnetka, Ill., of senility.

JOHN S. CUMMINS, Rosiclare, Ill.; Medical College of Evansville, Ind., 1883; aged 81; died, in September at Metropole, of arteriosclerosis.

JAMES R. DAVEY, Chicago; Chicago Medical College, 1887; member of the Illinois State Medical Society; for many years on the staff of the Illinois Charitable Eye and Ear Infirmary; aged 71; died, September 16, of angina pectoris.

RALPH PARKER DOWD, Fisher, Ill.; Medical College of Ohio, Cincinnati, 1893; aged 64; died, September 29, of cerebral hemorrhage.

HARRIET E. GARRISON, Dixon, Ill.; Northwestern University Womans Medical School, 1876; aged 82; died, October 3.

EDGAR JESSE GEORGE, Chicago; Chicago Homeopathic Medical College, 1890; General Medical College, Chicago, 1905; aged 67; died at Chicago Memorial Hospital, October 21, of coronary thrombosis and myocardial infarction.

ROBERT R. HILLER, Thebes, Ill.; St. Louis College of Physicians and Surgeons, 1893; aged 69; died, October 3.

JUNIUS CLARKSON HOAG, Chicago; Northwestern University Medical School, 1882; a former president of Chicago Medical Society and Chicago Gynecological Society, and member of the British Gynecological Society and obstetrician at St. Luke's hospital; aged 72; died, October 10, of carcinoma of the colon.

RALPH RANDOLPH HOLMES, Chicago; College of Physicians and Surgeons, Chicago, 1906; a Fellow, A. M. A.; formerly senior instructor in medicine at his alma mater; on the staff of the Englewood Hospital; aged 56; died, September 26, of chronic myocarditis.

ROBERT MONTGOMERY HOUCK, Vandalia, Ill.; Rush Medical College, Chicago, 1882; aged 72; died, August 28, in a hospital at Dowagiac, of diabetes mellitus.

WILLIAM THOMAS JOHNSTON, Chicago; Chicago Medical School, 1926; a Fellow, A. M. A.; aged 44; died, September 22, of chronic myocarditis and terminal pulmonary edema.

ROBERT MALONE KING, Wyoming, Ill.; Louisville (Ky.) Medical College, 1898; member of the Illinois State Medical Society; aged 66; died, September 22, of heart disease.

PETER J. KOERPER, Wilmette, Ill.; Rush Medical College, 1903; a Spanish-American war veteran of the hospital division of the Navy; aged 52; died, September 14, of cirrhosis of the liver and chronic nephritis.

EDWARD FRANKLIN LEONARD, Chicago, Harvey Medical College, Chicago, 1902; University of Illinois College of Medicine, 1903; assistant professor of neurology at University of Illinois, consulting neurologist at the Convent of the Good Shepherd, a Fellow, A. M. A.; member Chicago Neurological Society and American Congress of Internal Medicine; aged 58; died, October 31, of mitral insufficiency.

GEORGE F. MEAD, Pinckneyville, Ill. St. Louis College of Physicians an Surgeons, 1892; aged 66; died, October 2, of myocarditis.

HENRY C. MITCHELL, Carbondale, Ill.; Chicago Medical College, 1879; member and past president of the Illinois State Medical Society; member of the American College of Surgeons; aged 74; died, October 2, in a hospital at Jacksonville, of arteriosclerosis.

GLENN RAYMOND RAY, Decatur, Ill.; University of Illinois College of Medicine, Chicago, 1929; aged 27; was killed, September 15, in an automobile accident.

THOMAS HARRISON STETLER, Pawpaw, Ill.; Chicago Medical College, 1876; aged 83; died, September 27, of uremic poisoning following chronic nephritis.

KAREL STULIK, Chicago; Rush Medical College, 1894; aged 70; died, October 6, of carcinoma of the prostate and pulmonary embolism.

DAVID HENRY TAYLOR, Chicago; Miami Medical College, Cincinnati, 1878; aged 82; died, September 25, of pernicious anemia and chronic myocarditis.

LEON HERBERT TOMBAUGH, Waukegan, Ill.; Medical Department of Western Reserve University, Cleveland, 1877; a Fellow, A. M. A.; aged 78; died, August 3, of myocarditis.

JANE CROMBIE TRULL, Elgin, Ill.; Bennett College of Eclectic Medicine and Surgery, Chicago, 1905; member of the Illinois State Medical Society; aged 58; died, September 6, of heart disease.

WILLIAM J. WEBB, Danville, Ill.; Columbus (Ohio) Medical College, 1884; aged 71; was found dead in bed, September 24, of heart disease.